

**ATV400-B 4×4**

**(4WD~2WD)**

**OWNER'S & MAINTAINING**



## Foreword

Dear Customer,

Congratulations and thank you for your purchase our All-Terrain Vehicle (ATV). It was designed and built to provide you with a superior ride, comfort, reliability, utility and safety. Your ATV was designed as a recreational ATV, for off-road use by one rider only.

This Operator's Manual is furnished to familiarize the operator of all proper operating procedures. It also includes information about the general care and maintenance of your ATV.

Most importantly, carefully read the following pages regarding safety warnings and active riding skills, and precautions. Children and adults differ in skills, physical abilities, and judgment. Some children may not be able to operate an ATV safely. Parents should always supervise their child's use of the ATV at all times. Parents should permit continued use of the ATV, only if they have determined that the child has the ability to operate the ATV, safely and responsibly.

All of the information in this manual is based on the latest product data and specifications

available at the time of printing, the manufacturers of ATV's reserve the right to make product changes and improvements, which may effect the illustrations or explanations without notice. If you have any other questions regarding our ATV's operation or maintenance, any authorized dealer can readily answer them.

Enjoy your ATV. And, if you respect your ATV, respect the environment, the local and state laws, and act responsibly. You will gain the respect of others.

※Product and specifications are subject to change without notice.

## **ATV Safety**

This section presents some of the most important information and recommendations to help you ride your ATV safely. Please take a few moments to read these pages. This section also includes information about the location of safety labels on your ATV.

### **Important safety information**

Your ATV can provide many years of service and pleasure-if you take responsibility for your own safety and understand the challenges you can meet while riding.

There is much that you can do to protect yourself when you ride. You'll find many helpful recommendations throughout this manual. The following are a few that we consider most important.

#### **Follow the age recommendation**

The minimum recommended age of this ATV model is 16. Children under age 16 should never operate this vehicle.

#### **Always wear a helmet**

It's a proven fact :helmets significantly reduce the number and severity of head injuries. So always wear an approved motorcycle helmet. We also recommend that you weaaye.

Protection, sturdy boots, gloves, and other protective gear.

### **Ride off-road only**

Your ATV is designed and manufactured for off-road use only. The tires are not made for pavement, and the ATV does not have turn signals and other features required for use on public roads. If you need to cross a paved or public road, get off and walk your ATV across.

### **Take time to learn & practice**

Even if you have ridden other ATVs, take time to become familiar with your skills and get accustomed to the ATV's size and weight.

Because many accidents involve inexperienced or untrained riders, we urge all riders to take a training course approved by the ATV safety institute.

Contact an authorized ATV dealer to find out about the training courses nearest you.

### **Be alert for off-road hazards**

The terrain can present a variety of challenges when you ride off-road. Continually “read” the terrain for unexpected turns, drop-offs, rocks, ruts, and other hazards. Always keep your speed low enough to allow time to see and react to hazards.

### **Ride within your limits**

Pushing limits is another major cause of ATV accidents. Never ride beyond your personal abilities or faster than conditions warrant.

Remember that alcohol, drugs, fatigue, and inattention can significantly reduce your ability to make good judgments and ride safely.

### **Don't drink and ride**

Alcohol and riding don't mix. Even one drink can reduce your ability to respond to changing conditions, and your reaction time gets worse with every additional drink. So don't drink and ride, and don't let your friends drink and ride either.

### **Keep your ATV in safe condition**

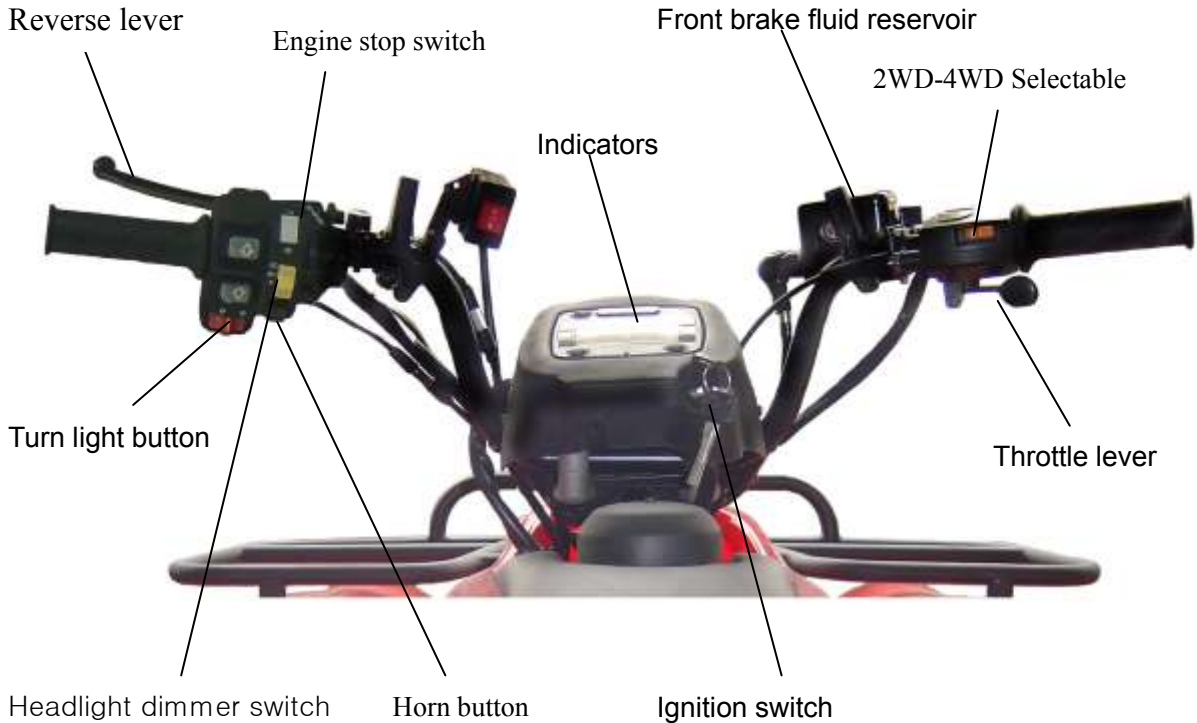
It's important to keep your ATV properly maintained and in safe riding condition. Having a breakdown can be difficult, especially if you are stranded off-road far from your base. To help avoid problems, inspect your ATV before every ride and perform all recommended maintenance. Your ATV comes with a hangtag and several labels containing important safety information. Anyone who rides the vehicle should read and understand this information before riding. The labels should be considered permanent parts of the vehicle. If a label comes off or becomes hard to read, contact your dealer for replacements.

## **Instruments & Controls**

This section shows the location of all indicators and controls you would normally use before or while riding your ATV.

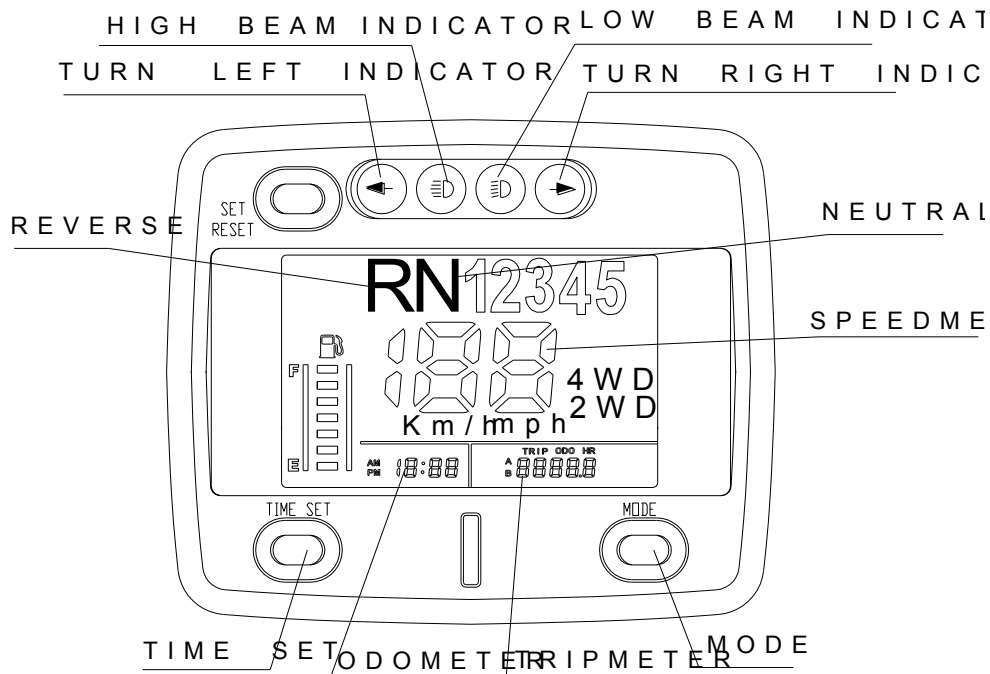
This items listed on this page are described in this section. Instructions for other components are presented in other sections of this manual where they will be most useful.

## **Front Component locations**





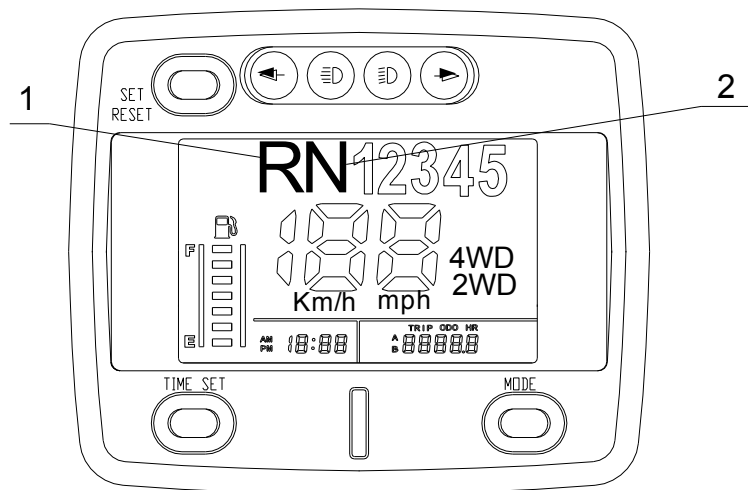
## Indicators & Display



## Gear Position Indicator

When the ignition switch is in the ON (1) position and the engine is running, the indicator displays: N for neutral, R for Reverse.

- (1) Neutral position indicator
- (2) Reverse position indicator



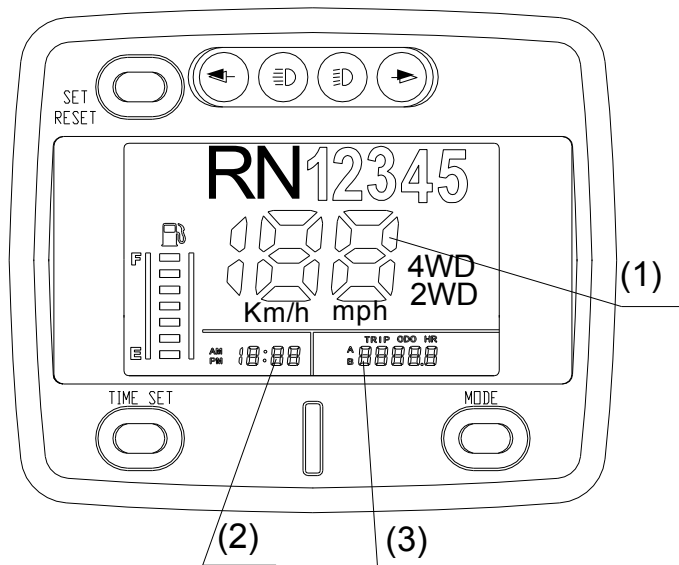
## Odometer

When selected, the odometer (2) registers total distance traveled in miles while the ignition is ON A. To change the display from trip meter to odometer, press and release the Odometer/Trip meter select button (1).

### **Functions switch:**

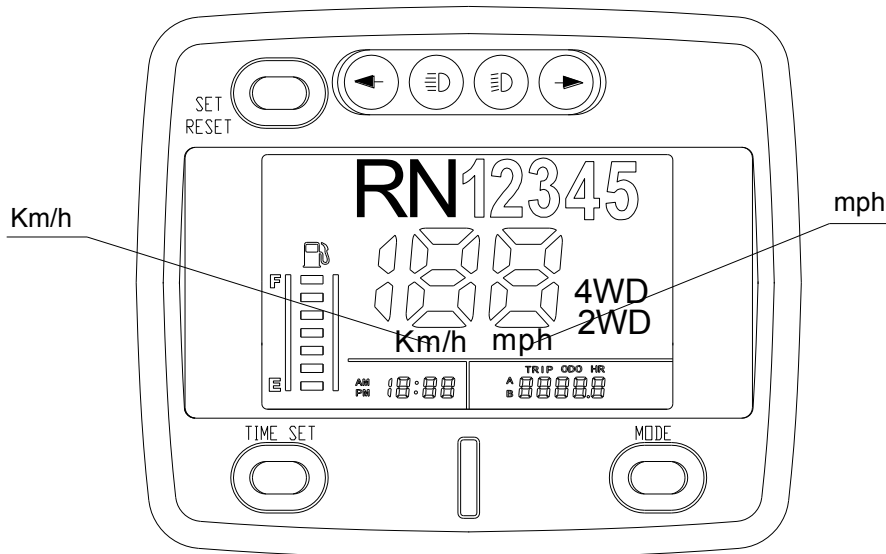
press the button of “ Mode “, the mode of “ODO, TRIP, A, TRIP B, HR A and HR B will display in the odograph and be switched between, the figure of speed will display and update synchronous while switching between “KM/H and MPH” in unit of speedometer. Press the button of “Time Set “, the user can set the hour and minute. Then adjust hours or minute by ascending or descending by continuing press button of mode of “ Set/Reset” , user can clean the record to zero for particular period of working mileage and time by pressing the mode of “Set/Reset “ while showing mode of “TRIP A and HR A” in the speedometer

- (1) Speed meter
- (2) Time
- (3) Trip meter



## Km/h & mph mode change

First of all, hold the MODE button, then turn the ignition switch to the open position, the indicator will display Km/h and mph, press the MODE button, choose either Km/h or mph needed, and after that, turn the ignition switch to the off position, finally turn the ignition switch to the open position, the indicator will display either Km/h or mph, whichever been chosen previously.



## **Controls & Features**

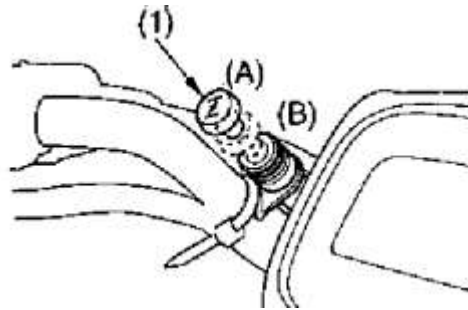
### **Choke Knob**

#### **LEFT HANDLEBAR**

(1) Choke knob

(A) Fully ON

(B) Fully OFF



The choke knob may be used when starting the engine.

## Choke Knob

The ignition switch is used for starting and stopping the engine. Insert the key and turn it to the right for the ON position.

### CENTER OF HANDLEBAR

(1) Ignition switch

| ON

○ OFF



Key position	Function
ON (   )	Electrical circuits on
OFF ( ○ )	No electrical circuits function

(1)

## Start Button

### LEFT HANDLEBAR

- (1) start button
- (2) engine stop switch
  - OFF
  - ON



The start button (1) is used for starting the engine. Pushing the button in starts the engine.

When the start button is pushed, the starter motor will crank the engine,  
The starter motor will not operate if the engine stop switch is in the OFF position  
when the start button is pushed.

## Engine Stop Switch

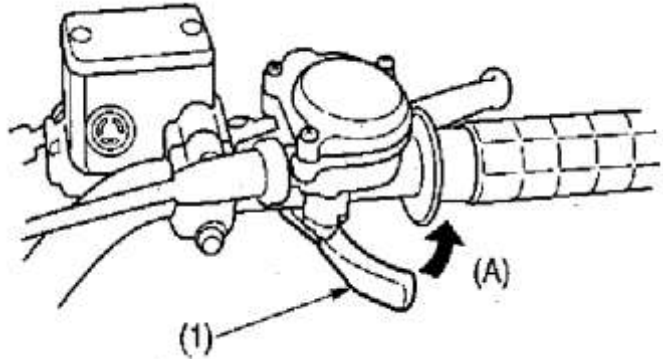
The engine stop switch (2) is used to stop the engine in an emergency. To operate, push the switch to either OFF position, the switch must be in the RUN position on start the engine.



## Choke Knob

### RIGHT HANDLEBAR

- (1) throttle lever
- (A) to open the throttle



The throttle controls rpm (speed). To increase engine rpm, press the lever (1) with your thumb. To reduce engine rpm, release pressure on the lever. The throttle will automatically return to the closed position (engine idle) when you remove your thumb.

## Rear Brake Pedal

### REAR BRAKE PEDAL

The rear brake pedal is used to slow or stop your ATV,  
To operate, depress the pedal.



Rear brake pedal

## Reverse Selector Knob

Take hold of the left handlebar lever, and then press gearshift pedal, adjust your ATV into reverse.

- (1) Rear protection bar (only for reverse)



## Front Brake Lever

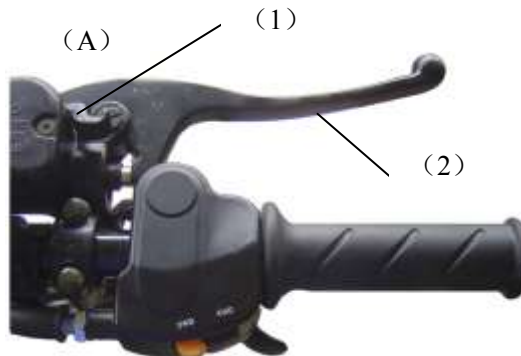
The front brake lever (2) is used to slow or stop your ATV, to operate, pull the lever.

## Parking Brake

### RIGHT HANDLEBAR

- (1) lock lever      (A) to lock
- (2) front brake lever / parking lever

The lock lever (1) on the front brake lever  
(2). Allows it to be used as a parking brake.  
To operate, first squeeze the rear brake  
lever and then lock it with the lock lever



## **Gearshift pedal (this part is in the toolbox )**

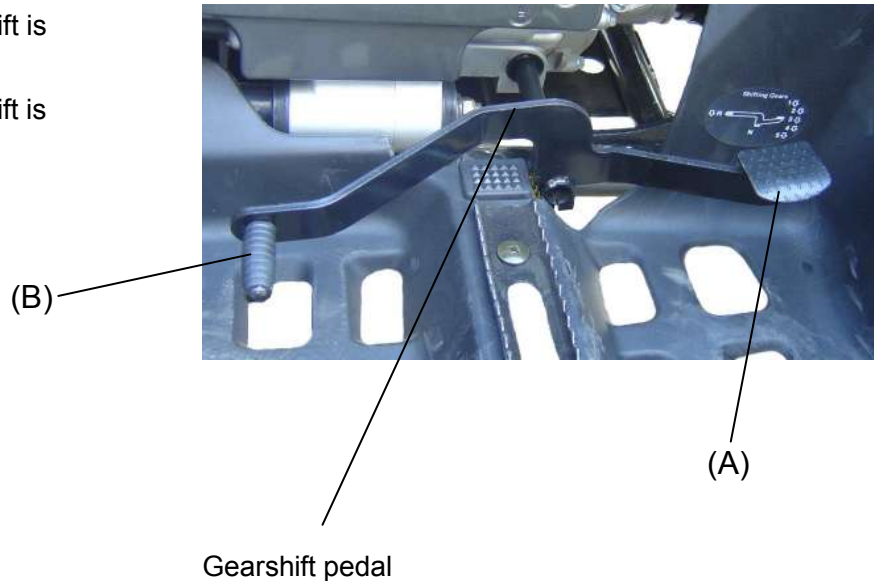
Gearshift pedal is used to realize upshift and downshift. (If the electric shift is broken or couldn't work , please take off the electric shift gear switch motor, then fix the gear shift pedal )

Squeeze the gearshift is

(A) for up shift,

Squeeze the gearshift is

(B) for downshift.

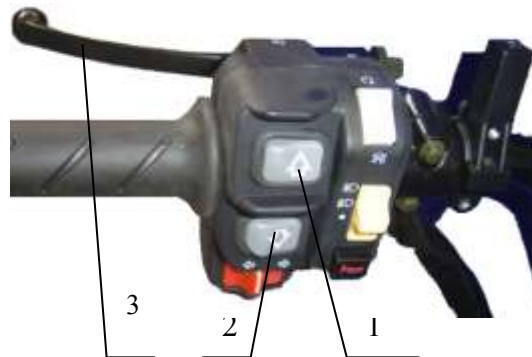


## Auto-Electric changed speed position application:

Button (1) is on the left handlebar switch assy which is used to rise the speed position. You can change from R、N、1、2、3、4、5 in turn through button (1) according to your need. Button (2) fall the speed position. You can change from 5、4、3、2、1、N、R in turn through button (2) according to your need. Pay more attention to grasp tightly the only for reverse lever(3), when changed from N to R. at the same time to push the button (2),and then release the only for reverse lever (3) so that the speed position is the R place.

In addition, there is the foot board (be used change speed position by feet) in the tool box . you can equip the foot board on the ATV when the Auto-electric speed position can not work.

Note: There must be have a good power supply ability when you use the Auto-Electric speed position.(see **Gearshift pedal** )



## On-Command four-wheel drive



2WD

4WD

On-Command four-wheel drive switch 2WD / 4WD

This vehicle is equipped with an On-Command four-wheel drive switch 2WD/ 4WD

- Two-wheel drive(2WD): Power is supplied to the rear wheels only.
- Four-wheel drive (4WD): Power is supplied to the rear and front wheels.

## **! WARNING**

### **POTENTIAL HAZARD**

Changing from 2WD to 4WD

Or vice-versa while the vehicle is moving.

### **WHAT CAN HAPPEN**

The vehicle handles differently in 2WD than in 4WD in some circumstances. Changing from 2WD to 4WD, or vice-versa while moving may cause the vehicle to unexpectedly handle differently. This could distract the operator and increase the risk of losing control and an accident.

### **HOW TO AVOID THE HAZARD**

Always stop the vehicle before changing from 2WD to 4WD, or vice-versa.



## n-Command four-wheel drive switch “2WD”/“4WD”



### On-Command four-wheel drive switch 2WD / 4WD

To change from 2WD to 4WD, stop the vehicle, and then set the switch to 4WD. When the vehicle is in 4WD, the four-wheel-drive indicator light 4WD. To change from 4WD to 2WD, and then set the switch to 2WD.

## **Basic Operation & Riding**

This section gives basic riding instructions, including how to start and stop your engine, and how to use the throttle and brakes. It also provides important information on riding with cargo.

### **Safe Riding Precautions**

Before riding your ATV for the first time, please review the *ATV Safety* section *Before Riding* section.

Even if you have ridden other ATVs, take time to become familiar with how this ATV works and handles. Practice in a safe area until you build your skills and get accustomed to the ATV's size and weight.

#### **Off-Road Use Only**

Your ATVs and its tires are designed and manufactured for off-road use only, not for pavement. Riding on pavement can affect handling and control. You should not ride your ATV on pavement.

When riding off-road, also remember to always to obey local off-road riding laws and regulations.

Obtain emission to ride on private properly.

Avoid posted areas and obey “no trespassing” signs.

You should never ride your ATV on public streets, roads or highways, even if they are not paved. Drivers of street vehicles may have difficulty seeing and avoiding you, which could lead to a collision. In many states it is illegal to operate ATVs on public streets, roads and highways.

### **! WARNING**

Operating this ATV on paved surfaces may seriously affect handling and control of the ATV, and may cause the vehicle to go out of control. Never operating the ATV on any paved surfaces, including sidewalks, driveways, parking lots and streets.

### **! WARNING**

Operating this ATV on public streets, roads or highways could cause you to collide with another vehicle. Never operate this ATV on any public streets, roads or highways.

## **Keep Hands and Feet on Controls**

Always keep both hands on the handlebars and both feet on the footplate when riding your ATV. This is important to maintain your balance and to control the vehicle. Removing even one hand from the handlebars or one foot from the footplate can reduce your ability to control the ATV or could cause you to lose your balance and fall off the ATV.

### **! WARNING**

Removing hands from handlebars or feet from footplate during operation can reduce your ability to control the ATV or could cause you to lose your balance and fall off of the ATV. Always keep both hands on handlebars and both feet on the footplate of our ATV during operation.

## **Control Speed**

Riding at excessive speed increases the chance of an accident. In choosing a proper speed, you need to consider the capability of your vehicle, the terrain, visibility and other operating conditions, plus your own skills and experience.

### **! WARNING**

Operating this ATV at excessive speeds increases your chances of losing control of the ATV, which can result in an accident. Always go at a speed that is proper for your vehicle, the terrain, visibility and other operating condition, and your experience.

### **Gearshift pedal**

Before riding in a new area, always check the terrain thoroughly. Don't ride fast on unfamiliar terrain or when visibility is limited. (It's sometimes difficult to see obstructions like hidden rocks, bumps, or holes in time to react.

### **! WARNING**

Failure to use extra care when operating this ATV on unfamiliar terrain could result in the ATV overturning or going out of control. Go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when operating the ATV.

Never ride past the limit of visibility. Maintain a safe distance between your ATV and other off-road vehicles. Always exercise caution, and use extra care on rough, slippery and loose

terrain.

### **! WARNING**

Failure to use extra care when operating on excessively rough, slippery or loose terrain could cause loss of traction or vehicle control could result in an accident, including an overturn.

Do not operate on excessively rough, slippery or loose terrain until you have learned and practiced the skills necessary to control the ATV on such terrain. Always keep especially cautions on these kinds of terrain.

### **Do Not Perform Stunts**

You should always operate your ATV in a safe and reasonable manner. When riding, always keep all four wheels on the ground.

### **! WARNING**

Attempting wheelies, jumps and other stunts increases the chance of an accident, including an overturn.

Never attempt stunts, such as wheelies or jumps. Don't try to show off.

## **Starting & Stopping the Engine**

Always follow the proper starting procedure described below.

For your safety, avoid starting or operating the engine in an enclosed area such as a garage. Your ATV's exhaust contains poisonous carbon monoxide gas that can collect rapidly in an enclosed area and cause illness or death.

### **Preparation**

1. Before starting, select a level surface and lock the parking brake.
2. Ignition switch to ON.

Confirm the following:

- The transmission is in NEUTRAL(neutral indicator light ON).
- The engine stop switch set to RUN.

The engine high temperature indicator should go off a few seconds after the engine starts.

### **Starting Procedure**

To restart a warm engine, follow the procedure for High Air Temperature.

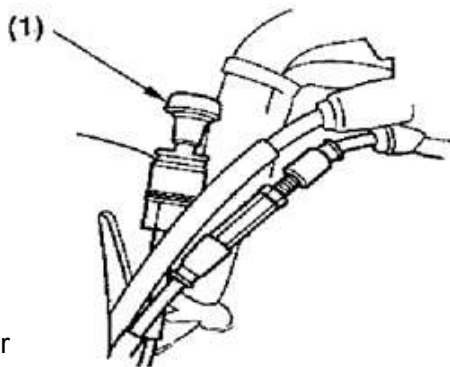
The starter motor will operate only when the transmission is in neutral.

Normal Air Temperature 10°C — 35°C (50° F — 95° F)

### **LEFT HANDLEBAR**

(1) choke knob

1. Pull the choke knob (1) up all the way to fully ON (A) position, if the engine is cold.
2. With the throttle closed, press the starter button.
  - Pressing the electric starter button for more than 5 seconds at a time may cause the starter to overheat and damage the starter. Release the starter button for approximately 10 seconds before pressing it again.
3. Immediately after the engine starts, operate the choke knob to keep fast idle.
4. Continue warming up the engine until it runs smoothly and responds to the throttle with the choke knob in the fully OFF (B) position.
5. If idling is unstable, open the throttle slightly. High Air Temperature 35°C (95F) or above.



### **LEFT HANDLEBAR**

(1) start button

1. Do not use the choke.



2. With the throttle slightly open, press the starter button (1) .

When air temperature is below -15°C (5° F), push the starting primer knob two or three times.

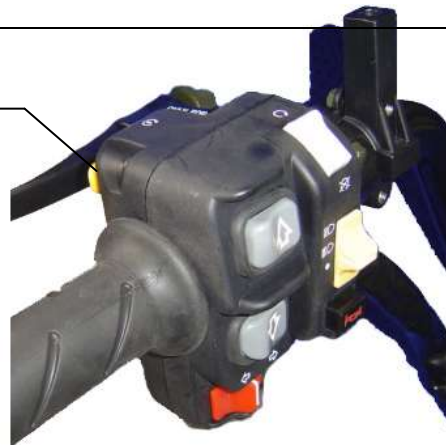
### **NOTICE**

*Extended use of the choke may impair piston and cylinder wall lubrication and shorten the life of the engine.*

*Do not race the engine during the warm-up period.*

Racing a cold engine wastes fuel and increases engine wear.

(1)



### **Flooded Engine**

If the engine fails to start after repeated attempts, it may be flooded with excess fuel. To clear a flooded engine:

1. Move the engine stop switch to OFF.
2. Push the choke knob down all the way to fully OFF.
3. Open the throttle fully.
4. Press the start button for 5 seconds (or operate the recoil starter several times) .
5. Wait 10 seconds, and then turn the engine stop switch to RUN.

6. Repeat the *Normal Air Temperature* Starting procedure. But don't use the choke.

## **How to Stop the Engine**

### **Normal Engine Stop**

To stop the engine, make sure the transmission is in neutral by checking that the neutral indicator lights, and turn the ignition switch OFF.

The engine stop switch should normally remain in the RUN position even when the engine is OFF.

If your ATV is stopped with the engine stop switch OFF and the ignition switch ON, the battery will discharge.

### **Emergency Engine Stop**

To stop the engine in an emergency, use the engine stop switch. To operate, move the switch to either OFF position.

## **Using the Recoil Starter**

The recoil starter is used to start the engine when the battery is low. To operate the recoil starter:

1. Grasp the starter grip (1) firmly, then pull it out slowly approximately 4 in (100mm) .
2. Pull the grip up briefly and fully.
3. After the engine starts, allow the starter grip to return slowly.

## RIGHT SIDE

(1) recoil starter grip

(1)



## Shifting Gears

### ATTENTION:

Learning how to shift gears comes with experience. Keep the following tips in mind:

1. As a general rule, shift while moving in a straight line.
2. When you want to change shift, you should obey the operate rule that release speed in advance, and then you can change
3. The transmission cannot be up shifted from neutral to first gear when the engine speed is above 3,000 rpm or the ground speed is above 6mph (10km/h).
4. The transmission cannot be downshifted from 1<sup>st</sup> gear to neutral when the ground speed is above 2mph (3km/h).
5. The upshift and downshift should master skill, choose the right time, throttle and gearshift



operation should cooperate rightly.

6. Downshift to a lower gear before you feel the engine laboring (lugging) at low rpm.
7. To prevent transmission damage, do not coast or tow the ATV for long distances with the engine off.
8. The engine shift is acyclic, you should obey following:

Upshift: Neutral → 1 → 2 → 3 → 4 → 5

Downshift: 5 → 4 → 3 → 2 → 1 → Neutral

Cannot upshift from neutral to 5th gear directly, cannot downshift from 5th gear to neutral directly also.

### **Recommended shift points**

Ride in the highest gear that lets the engine run and accelerate smoothly. This will give you good fuel economy and effective emissions control.

## **Riding In Reverse**

If you need to ride in reverse, make sure the area behind you is clear and only operate the ATV at low speed.

1. Be sure there are no obstacles or people in the way.
2. Take hold of the reverse protected brake lever (right), take hold of the left brake lever (front brake) and squeeze rear brake (right foot brake), and then use your left foot squeeze the gearshift, now it be in reverse gear (R).
3. Release the front and rear brake, in the same time, release the reverse protected brake lever (right),
4. Open the throttle gradually and ride slowly. Do not open the throttle suddenly or make abrupt turns.
5. To stop, close the throttle and gradually apply both the front and rear brakes.
6. To shift out of reverse and into neutral, close the throttle, after the engine speed stop, raise the gearshift to shift into "N" (neutral) gear.

### **! WARNING**

Improperly operating in reverse could cause you to hit an obstacle or person behind you, insulting in serious injury.

Make sure there are no obstacles or people behind you before selecting reverse gear. When it is safe to proceeding, go slowly.

## **Braking**

For this ATV, it is equipped with disc brakes on both front wheels, which are hydraulically activated by operating the left brake lever. a single disc brake on the rear axle housing is hydraulically actuated by depressing the bake pedal. Only depressing the brake pedal will cause braking at rear wheels.

For full braking effectiveness, use both the pedal and lever simultaneously. Using both braking systems will stop your ATV faster with greater stability.

To slow or stop, apply the brake lever and brake pedal smoothly, while downshifting to match your speed.

Gradually increase braking as you feel the brakes slowing your speed. The increase in engine compression from downshifting will help slowing your ATV.

Applying the brakes too hard may cause the wheels to lock and slide, reducing control of your ATV. If this happens, release the brake controls, steer straight ahead until you regain control, then reapply the brakes more gently.

Your ability to brake in a turn and to brake hard in an emergency situation is important riding skills.

When descending a long, steep grade, use engine compression braking by downshifting, with

intermittent use of both brakes.

Continuous brake application can overheat the brakes and reduce their effectiveness.

Riding with your foot resting on the brake pedal or your hands on the brake levers may overheat the brakes, reducing effectiveness.

For information on how to apply the brakes in various riding situations, see the following section, Riding Your ATV.

## **Riding Your ATV**

### **Making Turns**

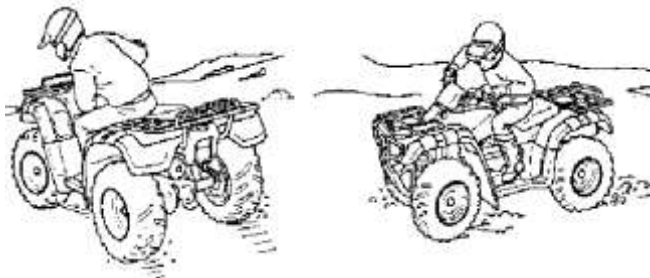
Learn how to turn your ATV properly. Practice the techniques outlined in this section on level ground and at low speeds until you are confident in making turns.

#### **! WARNING**

Turning improperly can make the ATV to go out of control, causing a collision or overturns.

- Always follow proper procedures for turning as described in this owner's.
- Practice turning at low speeds before attempting to turn at faster speeds.
- Do not turn at excessive speeds.





Lean your body to the inside of a turn and forward.

**To make a turn on level ground:** Steer the handlebar and lean your body toward the inside of the turn. Leaning helps balance the vehicle, and it feels more comfortable. Leaning into a turn is an important technique to master in riding an ATV.

**To make a sharp turn at low speed:** It helps to shift your body slightly forward on the seat, and lean inside, as you steer the handlebar. Shifting weight forward allows the rear wheels to turn easier, and it also improves front-wheel steering.

**To make a turn from a full stop:** Apply the throttle gradually when you turn and start up at the same time. Remember to shift your body forward to make sharp low-speed turns and whenever you turn while accelerating from a full stop.

## Skidding or Sliding

The terrain surface can be a major factor affecting turns. Skidding during a turn is more likely to occur on slippery surfaces, such as snow, ice, mud and loose gravel. If you skid on ice, you may lose all directional control. To avoid skidding on slippery terrain, keep your speed low and ride with caution.

### **! WARNING**

Skidding or sliding improperly may cause you to lose control of this ATV. You may also regain traction unexpectedly, which may cause the ATV to overturn.

Learn to safely control skidding by practicing at low speeds and on level, smooth terrain.

If your ATV skids sideways during a turn, steer in the direction of the skid. Avoid hard braking or accelerating until you have regained directional control.

## Starting Procedure

The ATV's ability to safely climb hills largely depends on the rider's skill and judgment. Begin by practicing on smooth, gently slopes. As you gain experience, you 'll learn the hazards and your own limitations. You may

then proceed to ride on more difficult terrain. However, you must be able to decide which hills and hazards might cause the ATV to overturn. Avoid excessively steep hills.

When climbing hills, you must shift weight toward to the front wheels to help keep them on the ground. To do this, shift your body slightly forward on the seat and lean forward. For greater weight shift, move your body farther forward and lean forward.

### **! WARNING**

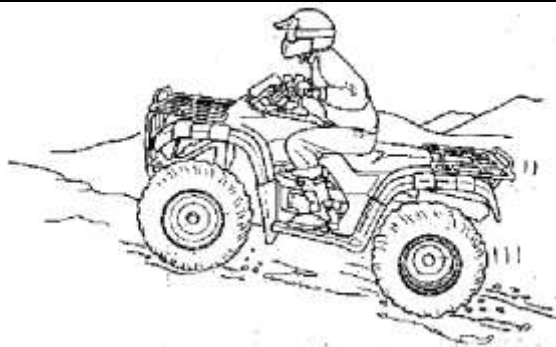
Operating on excessively steep hills can cause the vehicle to overturn more easily than operating on level surfaces or small hills. Never operating the ATV on hills too steep for the ATV or for your ability.

### **! WARNING**

Climbing hills improperly could cause loss of control or cause the ATV to overturn. Always follow proper procedures for climbing hills as described in this owner's manual.

**Shift weight forward when climbing hills.**

- Always check the terrain carefully before you start up any hill.
- Never climb hills with excessively slippery or loose surfaces.
- To climb a hill, take a running start in an appropriate gear and speed for the conditions. Maintain a steady speed as you ascend the hill.
- Never open the throttle suddenly or make sudden gear changes. The ATV could flip over backward.
- Never go over the top of any hill at high speed. An obstacle, a sharp drop, or another vehicle or person could be on the other side of the hill.



### **Stalling the ATV and/or Rolling Backwards:**

If you incorrectly estimate climbing capability or terrain conditions, the ATV may not have enough power or traction to continue uphill. If this happens, the ATV can stall and/or roll backwards.

#### **! WARNING**

Stalling, rolling backwards or improperly dismounting while climbing a hill could result in the ATV overturning.

Always follow proper procedures for climbing a hill as described in this owner's manual.

### **What to do if the ATV stalls or rolls backwards when climbing hill:**

If you are about to lose all forward speed:

1. Using the front and rear brakes together, bring the ATV to a stop with the vehicle pointed straight uphill.
2. Get off the ATV while you continue holding the brakes.
3. Shift into neutral, set the parking brake and turn the engine off.
4. Then assess the situation.

If the ATV starts rolling backwards before you begin braking:

- (1).Keep your weight uphill.
- (2).Carefully apply the front brakes first, and then carefully apply the rear brake. Do not apply either brake abruptly if you are rolling backwards, or the vehicle may overturn.

**If the ATV continues sliding backwards:**

After you've applied the brakes, get off and away from the vehicle.

Remember that operating any brake control with four-wheel drive will cause braking at both the front and rear wheels.

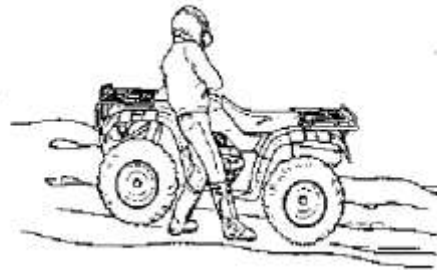
**What to do after the ATV has stalled or rolled backwards:**

If the hill is too steep or too slippery, or if you have any doubt whether you can safely walk the ATV back down the hill, leave the vehicle where is and get help. If possible, block the wheels so the vehicle doesn't roll backwards.

If the hills is not too steep and you have good footing, you may be able to walk the ATV back down the hill. Make sure your intended path is clear in case you lose control of the ATV.



Be sure your legs are  
Clear of the wheels



Body position for  
Backing down a hill

1. Stand with your body facing downhill, beside the vehicle so you can reach the rear brake lever with your right hand.
2. Be sure your legs are clear of the wheels.
3. Slowly and carefully back the ATV down the hill using the rear brake lever to control speed.
4. If you lose control of the ATV, for your safety, get away from the vehicle.

## Riding Down Hills

It's usually advisable to descend hills with the ATV pointed straight downhill. Avoid angles that would cause the vehicle to lean sharply to one side.

### **! WARNING**

Going down a hill improperly could cause loss of control or cause the ATV to overturn.

Always follow procedures for going down hills as described in this owner's manual.

On downhill, shift your weight back

As you approach a downhill, stop and survey the terrain below. Never ride past the limit of your visibility. Never go down a hill at high speed.

When you've selected a safe downhill path, shift into a lower gear, shift your weight back with your arms extended and braced against the





handlebar, then go down slowly with the throttle close.

Using mainly the rear brake to control speed. Avoid using either the front brake or rear brake hard or abruptly when riding down hill.

Remember that operating any brake control with four-wheel drive will cause braking at both the front and rear wheels.

Remember, braking effectiveness is reduced on any hill with a loose surface.

### **Riding or Turning on Hills or Slopes**

Riding on hills or slopes is different from riding on level terrain. Be careful when riding on any hill. Make sure that you practice on gently smooth slopes before attempting to ride on steeper or more difficult terrain.

#### **! WARNING**

Improperly crossing hills or turning on hills could cause loss of control or cause the ATV to overturn. Always follow proper procedures for crossing or turning on slopes as described in this Owner's Manual. Avoid crossing steep hills if possible.

### **Crossing Hills or Slopes**

- To maintain balance and stability when riding across a slope, you need to shift weight toward the uphill side of the vehicle. To do this, move your body off the center of the seat and lean toward the uphill side.
- On a slippery or loose surface, you may also need to steer slightly uphill to maintain a straight course across the slope.
- Avoid crossing hills that are excessively steep, slippery or rough.  
Shift weight uphill when crossing slopes

### **Make Turns on Slopes**

- Compared to riding on level ground you may need to shift more weight and lean more when making turns on slopes.
- Do not make turns on any slopes until you have first mastered the techniques for making turns on level terrain.



## **Riding Over Obstacles**

Before operating in a new area, check for obstacles. Watch out for bumps, rain ruts, potholes and other obstacles in the terrain. When you approach any obstacle, reduce your speed and get prepared to stop. Never try to ride over large obstacles, such as large rocks or fallen logs.

### **! WARNING**

Improper operating over obstacles could cause loss of control or a collision and could cause the ATV to overturn.

When you go over obstacles, always follow proper procedures as described in this owner's manual.

## **Riding Through Water**

Your ATV is designed to travel through water up to approximately 10 inches deep. Before crossing a stream, make sure the water is not too deep or flowing too fast.

1. Choose a path where both banks have gradual slopes.
2. Proceed through the water at a slow, steady speed.

3. Watch out for submerged obstacles and lipper rocks.
4. Avoid getting the spark plug or air cleaner wet, as this would cause the engine to stop.
5. After leaving the water, always test both the front and rear brakes.
  - Riding through water can make the brakes less effective than normal, and may reduce stopping ability.
  - If necessary, apply the brakes repeatedly until they dry out and operate normally.
  - If the brakes don't regain effectiveness, stop your ATV .

### **! WARNING**

The ATV tires have some ability to float. Operating this ATV through deep or fast-flowing water may cause a loss of traction and loss of control, which could lead to an accident.

Never operate this ATV in fast-flowing water or in water deeper than that specified in this Owner's Manual.

## **Parking**

1. Look for level parking area. Make sure the ground surface is firm.
2. After bringing your ATV to a stop, hold the brakes while you shift into neutral.
3. Set the parking brake.
4. Turn the ignition switch OFF (O). If you're through riding for the day, turn the fuel OFF.

## **Servicing Your ATV**

To help keep your ATV in good shape, this section includes a Maintenance Schedule for required service and step-by-step instructions for specific maintenance tasks. You'll also find important safety precautions. Information on fuels and oils, and tips for keeping your ATV looking good.

### **The Importance of Maintenance**

Keeping your ATV well-maintained is absolutely essential to your safety. It is also a good way to protect your investment, get maximum performance, avoid breakdowns, and have more fun. A properly maintained ATV will also help to reduce air pollution.

Remember, proper maintenance is the owner's responsibility. Be sure to inspect your ATV before each ride, and follow the Maintenance Schedule in this section.

#### **! WARNING**

Improper maintaining this ATV or failing to correct a problem before you ride can cause a crash in which you can be seriously hurt or killed.

Always follow the inspection and maintenance recommendations and schedules in this owner's manual.

If your ATV overturns or is involved in a crash, be sure your ATV dealer inspects all major parts, even if you are able to make some repairs.

## **Maintenance Safety**

This section includes instructions on how to perform some important maintenance tasks. If you have basic mechanical skills, you can perform many of these tasks with the tools provided with your ATV.

Other tasks that are more difficult and require special tools are best performed by professionals. Only our ATV technician or other qualified mechanic should normally handle removing the wheels. Instructions are included in this manual only to assist in emergency service.

Some of the most important safety precautions follow. However, we cannot warn you of every conceivable hazard that can arise in performing maintenance. Only you can decide whether or not you should perform a given task.

### **! WARNING**

Failure to properly follow maintenance instructions and precautions can cause you to be seriously hurt or killed. Always follow the procedures and precautions in this owner's manual.

## Important Safety Precautions

- Make sure the engine is off before you begin any maintenance or repairs. This will help eliminate several potential hazards:
  - Carbon monoxide poisoning from engine exhaust. Be sure there is adequate ventilation you operate the engine.
  - Burns from hot ATV parts. Let the engine and exhaust system cool before touching.
  - Injury from moving parts. Do not run the engine unless instructed to do so.
- Read the instructions before you begin, and make sure you have the tools and skills required.
- To reduce the possibility of a fire or explosion, be careful when working around gasoline. Use only non-flammable solvent, not gasoline, to clean parts. Keep cigarettes, sparks, and flames away from all fuel-related parts.

Remember that your ATV dealer knows your ATV best and is fully equipped to maintain and repair it. To ensure the best quality and reliability, use only new genuine our parts or other equivalents for repair and replacement. If you have the tools and skills required for additional maintenance jobs, you can purchase an official ATV Service Manual.

## **Maintenance Schedule**

The required Maintenance schedule that follows specifies how often you should have your ATV serviced, and what things need attention. It is essential to have your ATV serviced as scheduled to maintain safe, dependable performance and proper emission control.

The service intervals in this Maintenance Schedule are based on average riding conditions. Some items will need more frequent service if you ride in unusually wet or dusty areas or at full throttle. Consult your ATV dealer for recommendations applicable to your individual needs and use.

Some items in the Maintenance Schedule can be performed with basic mechanical skills and hand tools. Procedures for these items are provided in this manual. Other items involve more extensive procedures and may require special training, tools and equipment. We recommend that you have your ATV dealer perform these tasks unless you have advanced mechanical skills and the required tools and equipment. Procedures for such items in this schedule are provided in an official ATV Service Manual available for purchase.

If you do not feel capable of performing a given task or need assistance, remember that your ATV dealer knows your ATV best and is fully equipped to maintain and repair it. If you decide to do your own maintenance, use only genuine ATV parts or their equivalents for repair or replacement to ensure the best quality and reliability.

Perform the pre-ride inspection and owner maintenance on this section at each scheduled



maintenance period.

Each item on the maintenance schedule requires some mechanical knowledge. Certain items (particularly those marked \* and \*\*) may require more technical information and tools. Consult your ATV dealer.

Should be serviced by your ATV dealer, unless you have the proper tools and service data and are mechanically qualified.

In the interest of safety, we recommend only your ATV dealer service these items.

## **Summary of Maintenance Schedule Notes & Procedure:**

### **NOTICE**

1. *Service more frequently when riding in dusty areas, sand or snow.*
2. *Service more frequently after riding in every wet or muddy conditions.*
3. *Replace every 2 years. Replacement requires mechanical skill.*

## **Maintenance Record**

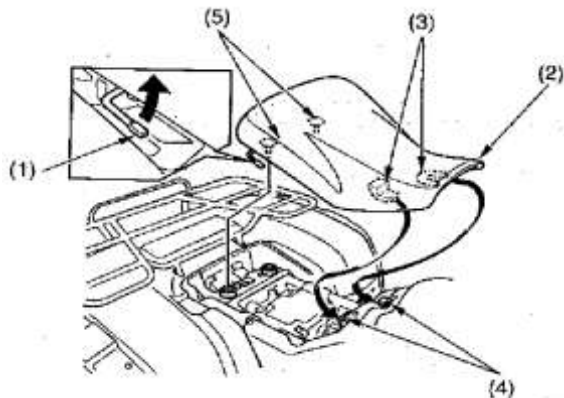
Keeping an accurate maintenance record will help ensure that your ATV is properly maintained. Retain detailed receipts to verify the maintenance was performed. If the ATV is sold, these receipts should be transferred with the ATV to the new owner. Make sure whoever performs the maintenance completes this record. All scheduled maintenance, is considered a normal owner operating cost and will be charged for by your dealer. Use the space under Notes to record anything you want to remain yourself about or mention to your dealer.

Miles (km) or hours	ODO or HOUR	Date	Performed By :Notes
100 (150) or 20			
600(1000) Or 100			
1200(2000) Or 200			
1800(3000) Or 300			
2400(4000) Or 400			
3000(5000) Or 500			
3600(6000) or 600			
4200(7000) or 700			
4800(8000) or 800			

## **Seat Removal**

The seat must be removed for the air cleaner, battery and fuse maintenance.

- (1) Seat lock lever
- (2) Seat
- (3) Front prongs
- (4) Hooks
- (5) Studs



### **Removal**

1. Pull the seat lock lever (1) at the right side of the seat.
2. Slide the seat (2) back and lift it

### **Installation**

1. Insert the front prongs (3) into the hooks (4) on the frame and press the studs (5) into the grommets on the battery holder).
2. Press down on the seat until locks.

## **Fuel**

### **Fuel recommendation**

Type	Unleaded
Pump octane number	90(or higher)

We recommend that you use unleaded fuel because it produces fewer engine deposits and extends the life of exhaust system components.

Your engine is designed to use any gasoline that has a pump octane number of 90 or higher. Gasoline pumps at service stations normally display the pump octane number.

Use of lower octane gasoline can cause persistent “pinging” or “spark knock” (a loud rapping noise) which if severe, can lead to engine damage. Light pinging experienced while operating under a heavy load, such as climbing a hill, is no cause for concern.

If pinging or spark knock occurs at a steady engine speed under normal load, change brands of gasoline. If pinging or spark knock persists, consult our dealer in your place.

Never use stale or contaminated gasoline or an oil / gasoline mixture. Avoid getting dirt, dust or water in the fuel tank.

### **Fuel Capacity**

Fuel tank capacity, including reverse:

3.43 US gal (13.0L, 2.86 Imp gal)

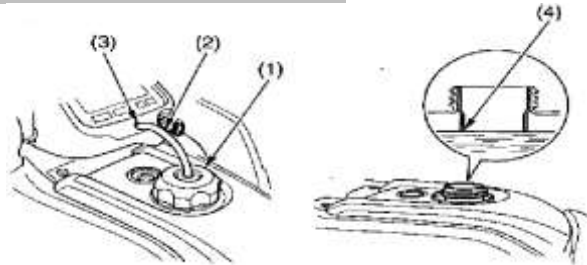
Reserve capacity:

0.85 US gal (3.2L, 0.70 Imp gal)

The tank should be refilled as soon as possible after switching to reserve, and the fuel valve should be returned to the ON position after refueling to avoid running out of fuel with no reserve.

### **Refueling Procedure**

- (1) fuel fill cap
- (2) handlebar cover hole
- (3) breather tube
- (4) filler neck



1. To open the fuel fill cap (1), turn it counter clockwise.
2. Pull the breather tube (2) out of the handlebar cover hole (3).
3. Add fuel until the level reaches the bottom of the filler neck (4). Avoid over filling the tank.  
There should be no fuel in the filler neck.

### **! WARNING**

Gasoline is highly flammable and explosive.

You can be burned or seriously injured when handling fuel.

- Stop the engine and keep heat, sparks and flame away.
- Handle fuel only outdoors.
- Wipe up spills immediately.

4. After refueling, turn the fuel fill cap clockwise until it clicks.
  5. Insert the breather tube (2) into the handlebar cover hole (3).
  6. If the fuel valve was set to RES, turn the fuel valve ON.
- If you replace the fuel fill cap, use only a genuine or replacement part.

## Oil Recommendation

API classification	SG or higher except oils labeled as energy conserving on the circular API service label
Viscosity (weight)	SAE 10W-40
JASO T 903 standard	MA
Suggested oil*	Pro GN4 or HP4 (without molybdenum additives) 4-stroke oil (USA & Canada), or an equivalent motorcycle oil.

- Suggested oils are equal in performance to SJ oils that are not labeled as energy conserving on the circular API service label.
- Your ATV does not need oil additives. Use the recommended oil.
- Do not use API SH or higher oils displaying a circular API “energy conserving” service label on the container. They may affect lubrication and clutch performance.



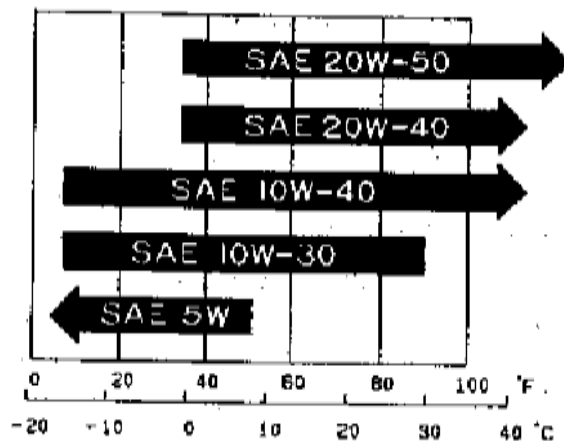
NO GOOD



OK

**Do not use non-detergent, vegetable, or castor based racing oils.**

Other viscosities shown in the following chart may be used when the average temperature in your riding area is within the indicated range.





## **JASO T 903 standard**

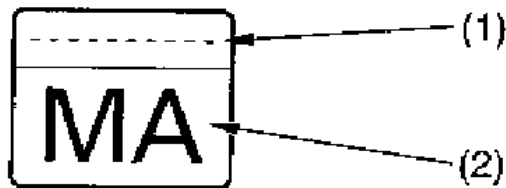
JASO T 903 standard is an index to choose engine oils for 4-stroke motorcycle engines.

There are two classes:

### **MA and MB.**

Oil conforming to the standard has the following classification on the oil container.

- (1) code number of the sales company of the oil
- (2) oil classification



## **Checking & Adding Oil**

Check the engine oil level each day before operating your ATV and add if needed.

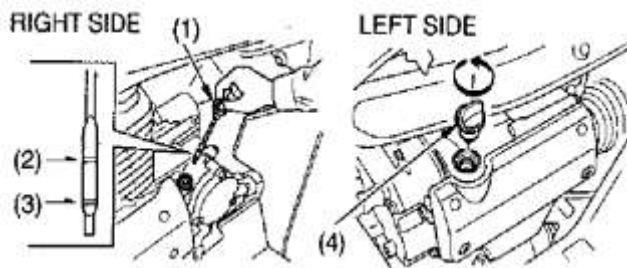
- 1. Park your ATV on a firm, level surface.
- 2. Start the engine in a well-ventilated area and let it idle for a few minutes. Stop the engine and wait 2-3 minutes.
- 3. Remove the dipstick (1) from the front crankcase cover and wipe it clean.

4. Insert the dipstick without screwing it in, then remove the dipstick and check the oil level. The oil level should be between the upper level mark (2) and the lower level mark (3) on the dipstick.
5. If required, remove the oil filler cap (4) from right side of the crankcase and add the specified oil into the filler cap hole, up to the upper level mark on the dipstick. Do not overfill.
6. Reinstall the oil filler cap and dipstick.

### **NOTICE**

Running the engine with improper oil level can cause serious engine damage.

- (1) Dipstick
- (2) Upper level mark
- (3) Lower level mark
- (4) Oil filler cap



## Changing Engine Oil & Filter

Your ATV's oil filter has very specific performance requirements. Use a new genuine oil filter specified for your model or a filter of equal quality.

### NOTICE

*Using the wrong oil filter may result in leaks or premature engine damage.*

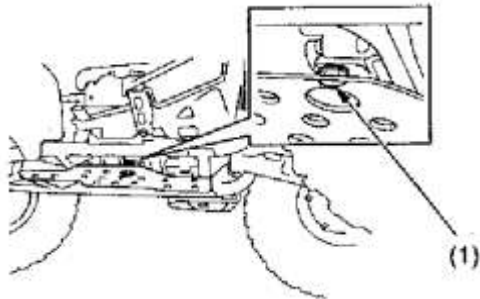
*This procedure requires mechanical skill and professional tools such as a torque wrench and oil filter wrench, as well as a means for disposing of the drained fluid. If you do not have the skills or the tools, see our dealer in your place.*

Drain the engine Oil:

1. With the ATV on level ground, remove the oil filler cap from the left side of crankcase.
2. Place an oil drain pan under the crankcase and remove the oil drain plug (1).

### Under Engine

(1) Oil drain plug

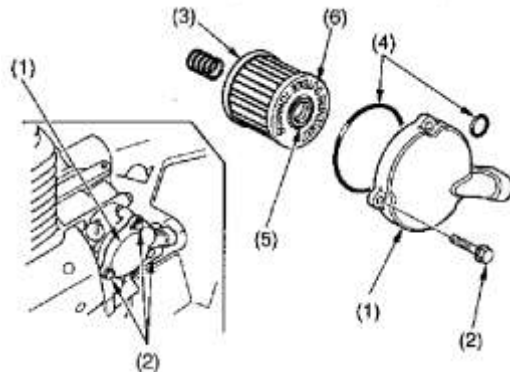


### **Install a New Engine Oil Filter:**

1. Remove the oil filter cover (1) by removing the bolts (2). Let the remaining oil drain out. Discard the oil filter (3).
2. Check that the oil filter cover O-rings (4) are in good condition and then install a new oil filter. Use only the genuine oil filter or a filter of equivalent quality may cause engine damage.
3. Install the filter with the rubber seal (5) facing out, away from the engine. You will see the "OUTSIDE (TOWARDS FILTER COVER)" mark (6) on the filter body, near the seal.

#### **RIGHT SIDE**

- (1) Oil filter cover
  - (2) Bolts
  - (3) Oil filter
  - (4) O-rings
  - (5) Rubber seal
  - (6) OUTSIDE mark
4. Reinstall the oil filter cover, making sure the bolts are tightened to the specified torque: 7 lbf • ft (10N • m, 1.0 kgf • m)



5. Pour the drained oil into a suitable container and dispose of it in an approved manner.

**NOTICE**

*Improper disposal of drained fluids is harmful to the environment.*

**Add Engine Oil:**

1. Check that the drain plug sealing washer is in good condition. If necessary, replace the sealing washer.
2. Reinstall the oil drain plug and tighten it in to the specified torque: 18 lbf • ft(25N • m, 2.5 • m)
3. Fill the crankcase with the recommended grade oil approximately: 1US qt(2.0 l, 1.8 Imp qt)
4. Reinstall the oil filler cap and dipstick.
5. Start the engine and let it idle for a few minutes.
6. Stop the engine and check the oil level. Make sure the oil is between the upper and lower level marks on the dipstick. If necessary, add more oil but do not overfill.
7. Check that there are no oil leaks.

If a torque wrench is not used for installation, see our dealer in your place as soon as possible to verify proper assembly.

## **Gear Case Oil**

### **Rear Final Gear Case Oil**

Type	Hypoid gear oil
Viscosity (weight)	SAE 80
Suggested oil	Shaft drive oil of original manufacturer or equivalent

### **Changing Oil**

Changing the oil with the gear case at normal operating temperature to assure complete and rapid draining.

1. Park the ATV on level ground.
2. Place an oil drain pan under the oil drain plug (1).
3. Remove the oil filler cap (2) and the drain plug.
4. After the oil has completely drained, reinstall the drain plug and tighten it to the specified torque:

9 lbf • ft(12N • m, 1.2kgf • m)

5. Fill the gear case with the recommended oil.

2.9 US oz (85cm<sup>3</sup>, 3.0 Imp oz)

6. Remove the oil level check bolt (3). Make sure the oil level reaches the oil level check hole (4).

7. Install the oil filler cap.

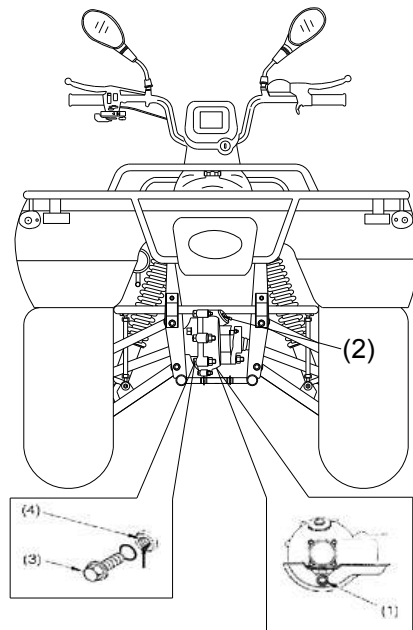
## REAR

(1)oil drain plug

(2)oil filler cap

(3)oil level check bolt

(4)oil level check hole



## **Differential Oil**

### **Oil Recommendation**

Type	Hypoid gear oil
Viscosity (weight)	SAE 80
Suggested oil	Shaft drive oil of original manufacturer or equivalent

### **Changing Oil**

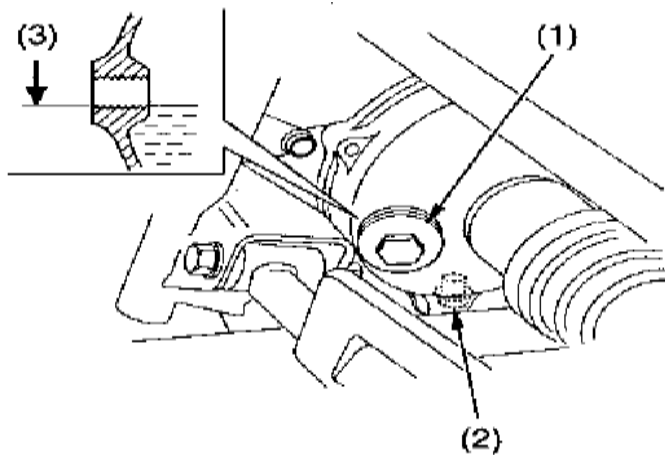
Changing the oil with the differential at normal operating temperature to assure complete and rapid draining.

1. Park the ATV on level ground.
2. Place an oil drain pan under the oil drain plug (1)
3. Remove the oil filler cap (2) and the drain plug.
4. After the oil has completely drained, reinstall the drain plug and tighten it to the specified torque:



lbf • ft(12N • m, 1.2kgf • m)

5. Fill the differential with the recommended oil.8.2 US oz (241cm<sup>3</sup>, 8.5 Imp oz).Make sure the oil level is at the lower edge of the oil filler inspection hole (3).
6. Install the oil filler cap.
  - (1).Oil drain plug
  - (2).Oil filler cap
  - (3).Oil filler inspection hole



## **Air Cleaner**

Proper air cleaner maintenance is very important for off-road vehicles. A dirty, water-soaked, worn-out, or defective air cleaner will allow dirt, dust, mud, and other impurities to pass into the engine.

Service the air cleaner more frequently if you ride in unusually wet or dusty areas. Our dealer in your place can help you determine the correct service interval for your riding conditions.

Your ATV's air cleaner has very specific performance requirements.

Use a new air cleaner of original manufacturer specified for your model or an air cleaner of equal quality.

### **NOTICE**

*Using the wrong air cleaner may result in premature engine damage.*

*Proper air cleaner maintenance can prevent premature engine wear or damage, expensive repairs, low engine power, poor gas mileage, and spark plug fouling.*

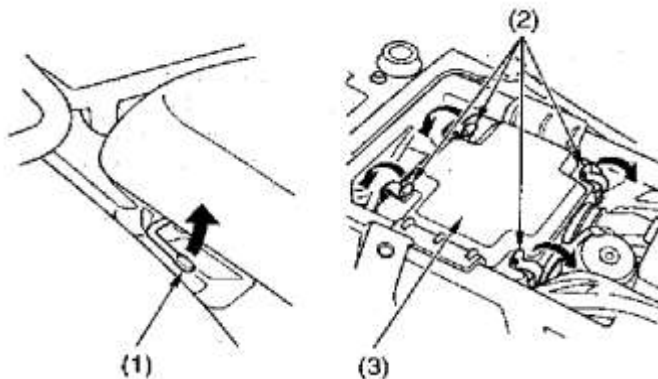
### **NOTICE**

*Improper or lack of proper air cleaner maintenance can cause poor performance and premature engine wear.*

## Cleaning

1. Remove the seat by pulling the seat lock lever (1) up.

### UNDER SEAT



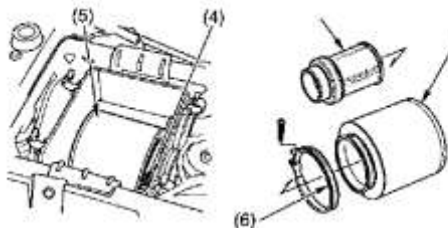
- (1) Seat lock lever
- (2) Retainer clips
- (3) Air cleaner housing cover

2. Unlatch the four retainer clips (2)
3. Remove the air cleaner housing cover (3).

4. Loosen the screw (4) and remove the air cleaner assembly (5) from the air cleaner housing.
5. Unscrew the clamp (6).
6. Remove the air cleaner (7) from the air cleaner body (8).
7. Gently wash the air cleaner in clean, non-flammable (high flash point) solvent such as kerosene-not gasoline. After cleaning, gently squeeze out the remaining solvent. Avoid twisting or wringing the air cleaner. This can tear the foam.
8. Inspect for tears or cracks in the foam or seams of the air cleaner. Replace the air cleaner if it is damaged.
9. Allow the air cleaner to dry thoroughly before applying oil. A wet air cleaner will not fully absorb the oil.
10. Pour clean Pro Foam Filter Oil of original manufacturer or an equivalent over the entire surface of the air cleaner. Use both hands to evenly spread the oil into the air cleaner. Gently squeeze out any excess oil. (To keep your hands dry, place the air cleaner in a clean plastic bag before spreading the oil into the air cleaner.)

## UNDER SEAT

- (4) screw
- (5) air cleaner assembly
- (6) clamp
- (7) air cleaner
- (8) air cleaner body



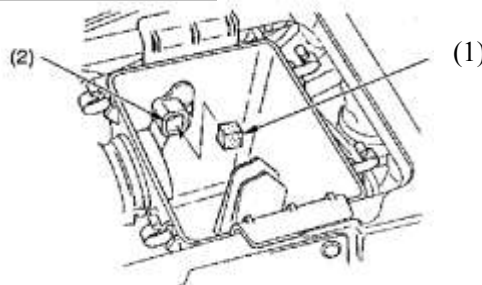
11. Install the air cleaner on the air cleaner on the air cleaner body.
12. Apply a thin coat of grease to the sealing surface of the air cleaner assembly.
13. Install the clamp.
14. Insert the air cleaner assembly into the air cleaner housing.
15. Fasten the screw.

## Starting Procedure

- (1) dust cover
- (2) breather joint

Do not push the dust cover (1) too far into the breather joint (2).

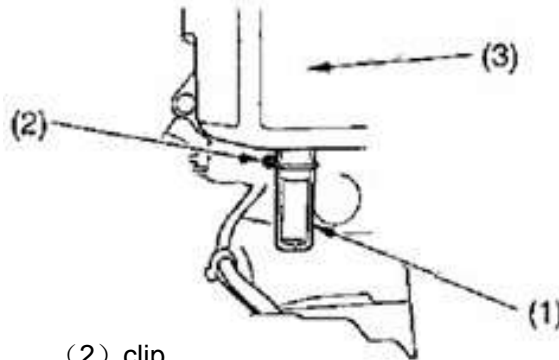
If the dust cover is dirty, clean it.



## Air Cleaner Housing Drain Tube

The air cleaner housing drain tube should be serviced in accordance with the Maintenance Schedule. (Riding through water may require more frequent inspection.) if deposits can be seen in the drain tube, the tube must be cleaned before starting the vehicle.

### REAR



(1) drain tube      (2) clip

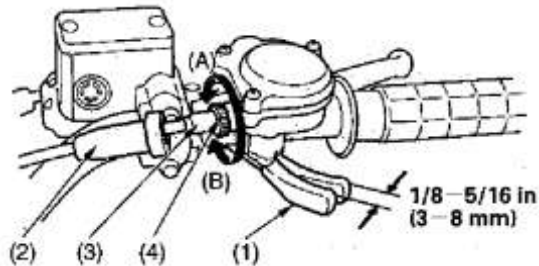
(3) cleaner housing

1. Remove the drain tube (1) by removing the clip (2) under the air cleaner housing (3).
2. Drain the deposits.
3. Reinstall the drain tube, securing it with the clip.

# Throttle

## Throttle Free play

### RIGHT HANDLEBAR



- (1) throttle lever      (2) rubber sleeve  
(3) throttle cable adjuster      (4) lock nut  
(A) decrease free play      (B) increase free play

### Inspection

Check free play at the throttle lever (1)

Free play: 1/8—5/16 in (3-8 mm)

## **Adjustment**

Slide the rubber sleeve (2) back to expose the throttle cable adjuster (3)

1. Loosen the lock nut (4).
2. Turn the adjuster to obtain the correct free play.
3. Tighten the lock nut and reinstall the sleeve.
4. After adjustment, check for smooth operation of the throttle lever from fully closed to fully open in all steering positions.

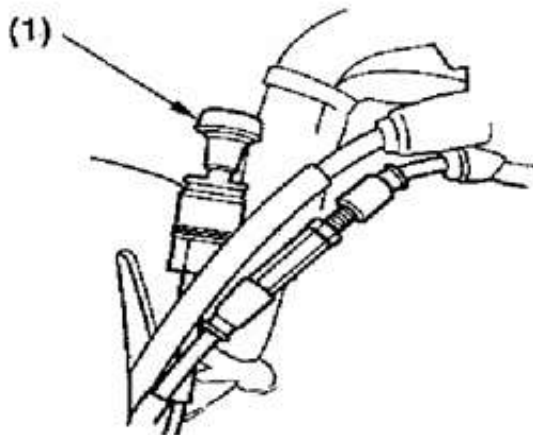
## **Throttle Inspection**

1. Check that the throttle assembly is positioned properly and the securing bolts are tight.
2. Check for smooth operation of the throttle lever from fully open to fully closed in all steering positions. If there is a problem, see our dealer in your place.
3. Inspect the condition of the throttle cables from the throttle lever down to the carburetor. If the cable is kinked if chafed, have it replaced.
4. Check the cables for tension or stress in all steering positions.
5. Lubricate the cables with a commercially --available cable lubricant to prevent premature wear and corrosion.



## **Carburetor Choke Cable & Knob**

### **LEFT HANDLEBAR**



(1) choke knob

1. Check the condition of the choke cable .
2. Check the operation of the choke knob (1)

If the cable is damaged or kinked, have it replaced by our dealer in your place.

## **Clutch System**

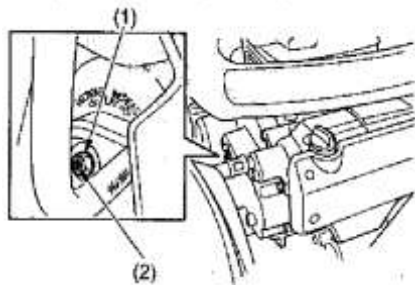
Your ATV's shift-activated, wet; mutilate clutch is part of the primary drive system. Proper adjustment allows a smooth, gradual engagement when shifting gears.

### **Throttle Inspection**

#### **Front**

(1) lock nut                      (2) switch adjuster

1. Make sure the ignition switch is OFF (○).
2. Loosen the lock nut (1).
3. Turn the clutch adjuster (2) counterclockwise until you feel slight resistance.
4. Turn the adjuster 1/4 turn clockwise, and then tighten the lock nut to hold the adjuster in this position.
5. After adjustment, start the engine and test ride your ATV to be sure the clutch is operating properly.



If you cannot get proper adjustment, or the clutch does not work properly, the cable or clutch friction discs may be worn. See our dealer in your place.

## **Engine Idle Speed**

The best way to assure proper carburetion is to see our dealer in your place for regularly scheduled servicing, including carburetor adjustment.

Remember, idle speed adjustment is not a “cure-all” for other problems in your engine’s fuel-delivery system. Adjusting the idle will not compensate for a fault elsewhere.

The engine must be at normal operating temperature for accurate idle speed adjustment.

### **RIGHT SIDE**

(1) Throttle adjust screw

(1)



## **Spark Plug**

### **Reverse Lock system adjustment**

Standard spark plug	DPRTEA—9 (NGK) or X22EPR—U9 (DENSO)
For cold climate (below 5°C, 41° F)	DPRGEA—9 (NGK) or X20EPR—U9 (DENSO)

Use only the recommended type of spark plug in the recommended heat range.

#### **NOTICE**

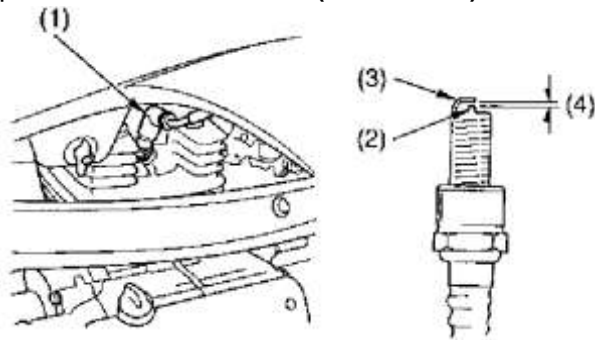
*Using spark plugs with an improper heat range can cause engine damage.*

### **Spark Plug Replacement & Inspection**

1. Clean any dirt from around the spark plug base.
2. Disconnect the spark plug cap (1). Take care to avoid damaging the spark plug wire when disconnecting the cap.

3. Using the spark plug wrench provided in the tool kit, remove the spark plug.
4. Inspect the electrodes and center porcelain for deposits, corrosion, or carbon fouling. If the corrosion or deposits are heavy, replace the plug. Clean a carbon or wet-fouled plug with a plug cleaner, if available, or a wire brush. Inspect the spark plug electrodes for wear. The center electrode (2) should have a flat tip and sharp edges, and the side electrode (30) should not be eroded. If the electrodes and insulator tip appear unusually fouled or burned, we suggest that you contact our dealer in your place.
5. Discard the spark plug if there is apparent wear or if the insulator is cracked or chipped.
6. Using a wire-type feeler gauge, check the spark plug gap (4). If adjustment is necessary, bend the side electrode carefully. The gap should be: 0.03-0.04 in (**0.8-0.9 mm**).

- (1) spark plug cap  
(2) center electrode  
(3) side electrode  
(4) spark plug gap



With the plug washer attached, thread the spark plug in by hand to prevent cross threading.

Tighten the spark plug:

1. About 1/8-1/4 turn after it seats (if the old plug is good).
2. About 1/2 turn after it seats (if installing a new plug).

#### **NOTICE**

*Improperly tightened spark plug can damage the engine. If a plug is too loose, a piston may be damaged. If a plug is too tight, the threads may be damaged.*

## **Valves**

### **Valve Inspection**

Valve clearance should be: 0.006 in (**0.15 mm**)

Excessive clearance will cause noise. Insufficient clearance will cause loss of power and possibly damage the valves.

## **Brakes**

Inspect the system before each ride to ensure there are no fluid leaks.

If you feel the brake system is not work so good, maybe there is air in the hydraulic pipe, following is the way how to get ride of air from pipe:

1. You need 2 persons to finish this work;
2. Step or take hold of brake (1), and then lose the screw (2);
3. Repeat step 2, until the air out from the pipe;
4. Try to test if the brake system ok, if not, go on to repeating step 2.

The recommended brake fluid is our DOT 3 OR DOT 4 brake fluid, or any brake fluid of equal quality and performance. Use fresh brake fluid from a sealed container. Be sure to read the label before opening the sealed container. An opened container may contaminated or may have absorbed moisture from the air.

### **How to brake your ATV**

Your ATV with disc breaks both for front and rear brake.

1. If you want to stop your vehicle when you are moving, release the accelerator, after that, you can step rear brake pedal, and then the rear disc brake will work and make the vehicle

stop.

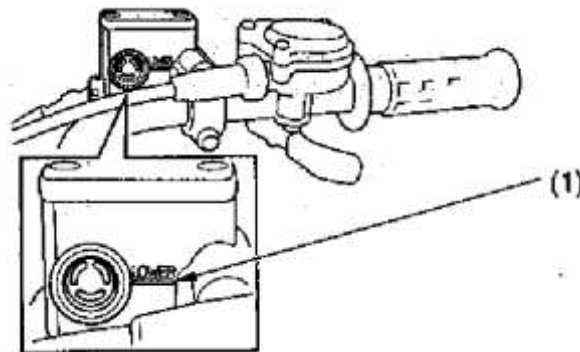
2. After you release the accelerograph, you can also take hold of your left handle brake (front brake) to stopping your vehicle. But please sure your speed is not so fast.
3. Before you break the vehicle, please sure you have release the accelerograph.
4. As a general rule, we use rear brake pedal to stop the vehicle, sometimes, if rear brake work not so good, you can use front brake level also, please sure you make the speed not so fast.

## Fluid level inspection

### Right Handlebar

#### (1) Lower level mark

If your inspection indicates a low fluid level, please add the recommended fluid. You can add or replace brake fluid if you are experienced, if not, please do not add or replace brake fluid freed, except in an emergency. If necessary, have our dealer in your place to check the system





as soon as possible.

### **NOTICE**

*Brake fluid can damage plastic and painted surfaces. Be careful.*

Wipe up spills immediately. Avoid contact with skin or eyes. In case of contact, wash thoroughly and call a doctor immediately if it contacts your eyes.

1. Make sure there are no fluid leaks.
2. Check for deterioration or cracks in the hoses and fittings. If the hoses are worn or cracked, have them replaced by our dealer in your place.

### **Rear Brake Pedal free Play**

(1) Rear brake pedal



(1)

## **Inspection**

Measure the distance of the rear brake pedal (1) moves before the brake starts to take hold.

Free play, measurement at the tip of the end of the pedal, should be:

9/16-13/16 in (15-20 mm)

If necessary, adjust to the specified range.

## **Tires**

To safely operate your ATV, your tires must be the proper type and size, in good condition with adequate tread, and correctly inflated.

### **! WARNING**

Using tires that are excessively worn or improperly inflated can cause a crash in which you can be seriously hurt or killed.

Follow all instructions in this owner's manual regarding tire inflation and maintenance.

This ATV is equipped with low-pressure tubeless tires. Although the tires are designed specifically for off-road use, they are not immune to punctures. Always select your riding area with care.

The following pages give detailed information on how and when to check your air pressure, how to inspect your tires for wear and damage, and our recommendations for tires for wear and damage, and our recommendations for tire repair and replacement.

## **Air Pressure**

Properly inflated tires provide the best combination of handling; tread life, and riding comfort. Generally, under inflated tires wear unevenly, adversely affect handling, and are more likely to fail from being overheated. Over inflated tires make your ATV ride more harshly, are more prone to damage from surface hazards, and wear unevenly.

Make sure the valve stem caps are secure. If necessary, install a new cap.

Always check air pressure when your tires are “cold”. If you check air pressure when your tires are “warm” –even if your ATV has only been ridden for a few miles-the readings will be higher. If you let air out of warm tires to match the recommended cold tire pressures, the tires will be under inflated. Be sure to check tire pressure at the riding site, since changes in altitude can affect air pressure.

The recommended “ cold ” tire pressures are:

		FRONT	REAR
NO CARGO	RECOMMENDED PRESSURE	3.6psi(25kPa, 0.25kfg/cm <sup>2</sup> )	3.6psi(25kPa, 0.25kfg/cm <sup>2</sup> )
	MAXIMUM PRESSURE	4.0psi(28kPa, 0.28kfg/cm <sup>2</sup> )	4.0psi(28kPa, 0.28kfg/cm <sup>2</sup> )
	MINIMUM PRESSURE	3.2psi(22kPa, 0.22kfg/cm <sup>2</sup> )	3.2psi(22kPa, 0.22kfg/cm <sup>2</sup> )
WITH CARGO	RECOMMENDED PRESSURE	3.6psi(25kPa, 0.25kfg/cm <sup>2</sup> )	3.6psi(25kPa, 0.25kfg/cm <sup>2</sup> )

A manually operated tire pump should be used rather than the high-pressure system found in service stations. This will minimize the possibility of tire damage from over inflation. If you use a high-pressure system at a station, add air in amounts and check the pressure increase frequently to prevent possible tire damage from over inflation.

### **! WARNING**

Operating this ATV with improper tires, or with uneven tire pressure may cause loss of control, and you could be seriously injured or killed.

Always use the size and type tires specified in this owner's manual for this vehicle.

Always maintain proper tire pressure as described in this owner's manual.

### **Inspection**

Whenever you check the tire pressures, you should also look for:

Bumps or bulges in the side of the tire or the tread. Replace any tire that has a bump or bulge.

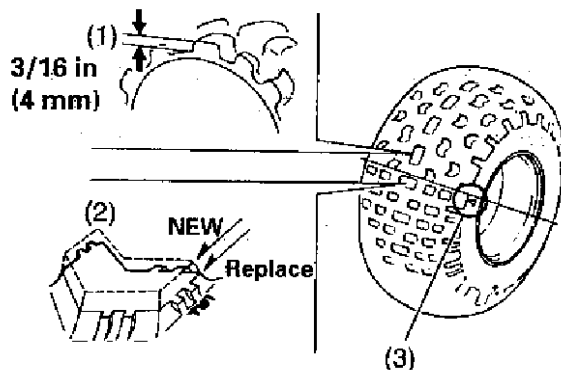
Cuts, slits, or cracks in the tires. Replace the tire if you can see fabric or cord.

Nails or other foreign objects embedded in the side of tire or tread.

Excessive tread wear.

Also, if you hit a pothole or other hard object while riding, stop as soon as you safely can and

carefully inspect the tires for damage.



### **Tread Wear**

(1) Groove depth

(2) Wear indicator location mark

(3) Wear indicator location mark

To check the condition of a tire tread, measure the groove depth (1) in the center of the tire, or check the wear indicator (2).

For best performance, you should replace a tire before the tread depth at the center reaches the following limits:

Front	3/16 in (4 mm)
Rear	3/16 in (4 mm)

## **Tire Repair**

A tire that is repaired, either temporarily or permanently, will have lower speed and performance limits than a new or undamaged tire.

A temporary repair can sometimes be made in an emergency situation. However, since a temporary repair may not hold, you must ride very slowly, preferably without any cargo, and have the tire replaced or permanently repaired as soon as possible.

A permanent repair, such as an internal plug patch, can be made if a tire has only a small puncture in the tread area. However you may not be able to safely carry as much weight. If you choose to have a tire repaired, be sure a professional performs the repair work.

If you have a tire professionally repaired at a non-original facility, we recommend that you have the work checked by our dealer in your place.

## **Tire Replacement**

The tires that came on your ATV were designed to match the performance capabilities of your

ATV and provide the best combination of handling, braking, and comfort.

It is best to replace all four tires, however if that is not possible, you must replace the tires in pairs (front or back) with tires of the same size and type as the originals. Never replace just one tire.

### **! WARNING**

Installing improper tires on your ATV can affect handling and stability. This can cause a crash in which you can be seriously hurt or killed.

Always use the size and type of tires recommended in this owner's manual.

The recommended tires for your ATV are:

	<b>ATV400—B</b>
Front	AT25×8—12 & AT24×8—12★★
Rear	AT25×10—12 & AT24×9—11 ★★

When you replace a tire, remember:



Have the tire replaced by our dealer in your place if possible.

If you have a tire professionally replaced at a non-initial facility, we recommended that you have the work checked by your dealer.

## **Battery**

Your ATV has a maintenance-free type battery. You do not have to check the battery electrolyte level or add distilled water as you would with a conventional-type battery.

### **NOTICE**

*Your battery is a maintenance-free type and can be permanently damaged if the cap strip is removed.*

Electrical accessories use current from the battery –even when the ignition is OFF. Limited operation also allows the battery to discharge. If you have electrical accessories on your ATV – or do not ride frequently, we recommend that you charge the battery frequently.

If you do not expect to ride your ATV for at least two weeks, we commend you remove the battery – or at least disconnect the battery cables (negative cable first).

If your battery seems weak and / or is leaking electrolyte (causing slow starting or other electrical problems), see our dealer in your place.

**WARNING:** Battery posts, terminals and related accessories contain lead and lead compounds. Wash your hands after handling.

## **Taking Care of the Unexpected**

With all the challenges you can encounter off-road, there's a chance that sometime something may go wrong. This section gives practical advice to help you deal with a wide range of problems. Take time to read this section before you ride.

### **General Guidelines**

Keeping your ATV well maintained is the best way to reduce the possibility of having a problem while riding. However, problems can arise even with well-maintained machines.

Remember to take along your owner's manual, the tool kit that came with your ATV, and any other items (such as tire repair supplies and additional tools) that might help you solve a problem on your own.

If something goes wrong during a ride, the first thing to do is stop as soon as you safely can. Do not continue riding if you have a flat tire, or you hear an unusual noise, or your ATV just doesn't feel right. If you continue riding, you could cause more damage and endanger your own safety. After a stop, take time to assess the situation. Carefully inspect your ATV to identify the problem, then consider your options before you decide what to do.

If a problem is relatively minor and you have the tools, supplies, and skills to make a permanent repair, you may be able to fix it on the trail and continue riding. Or, you may be able to make a

temporary repair that allows you to slowly ride back to your base where you can make a permanent repair or get help.

When a problem is more serious—or you don't have the tools, supplies, experience, or time to deal with it—you need to choose the safest way to get yourself and your ATV back to base. For example, if you are close enough, you (or you and another person) might be able to push it back.

Should you ever have a problem while riding, please follow these guidelines:

- Always put personal safety first.
- Take time to assess the situation and your options before deciding what to do.
- If the problem is relatively minor and you have the tools, supplies, and skills to make a temporary repair, be sure to have permanent repairs made as soon as possible.
- Do not continue riding if you are hurt or your ATV is not safe riding condition.

Additional recommendations for specific problems follow.

## **If Your Engine Quits or Won't Start**

Proper operation and maintenance can prevent starting and engine performance problems. In many cases, the cause of the problem may be a simple operational oversight.

If you have a problem starting the engine—or experience poor engine performance—the

following information may help you. If you can't correct the problem, see our dealer in your place.

If your ATV won't start, listen as you press the start button. If you don't hear the starter motor turning, refer to the Starter motor doesn't operate symptom. If you can hear the starter motor working normally, refer to the Starter motor works, but the engine won't start symptom.

Symptom: <b>Starter motor doesn't operate.</b>	
Possible cause	What to do
Ignition switch OFF	Turn the ignition switch ON.
Transmission not in neutral	Shift into neutral.
Blown fuse	Replace with a new fuse of the same rating
Battery lead loose	Tighten the battery lead. Charge the battery. If charging doesn't help, see your dealer.
Faulty starter motor	If all possible causes are negative, the starter motor may be faulty. See your dealer.

Symptom: <b>Starter motor works, but the engine won't start.</b>	
Possible cause	What to do
Out of fuel	Fill the fuel tank.
Flooded engine	See Flooded Engine
Loose or unconnected spark plug cap	Install the spark plug cap securely. If the engine still won't start, see your dealer.
Loose battery cables	Tighten the battery terminal bolts.
Weak battery	Charge the battery. If charging doesn't help, see your dealer.
Symptom: <b>Engine starts, but runs poorly.</b>	
Possible cause	What to do
Idles roughly, too fast, stalls	Check engine idle adjustment. If the problem persists, see your dealer.
Poor engine performance at altitudes above 3000 feet	Ask your dealer to modify the carburetion with a high altitude jet. Refer to High Altitude Carburetor Adjustment.
Oil high temperature	Check the oil high temperature indicator. Refer to If the Oil High Temperature Indicator Lights.

Runs erratically, misfires	See your dealer.
Blubbers (rich fuel mixture)	See your dealer.
Sooty exhaust (rich fuel mixture)	If applicable, switch to the recommended octane gasoline or change your brand of gasoline. If the problem persists, see your dealer.
After fires (backfires)	See your dealer.
Pre-ignition (runs on after ignition switched OFF)	See your dealer.

## **If You Have a Flat Tire**

How you handle a flat tire on the trail depends on how serious the tire damage is, and what tools and supplies you have with you.

If you have a slow leak or a minor puncture, use the plug method to make a temporary repair. (The plug method is applied from the outside of the tire and is the same as that for conventional tubeless tires.)

A plug-type repair kit, available at most auto parts stores or service stations, provides a plug, an installation tool, tire cement, and an instruction sheet. Follow the instructions provided with the repaired should be replaced.

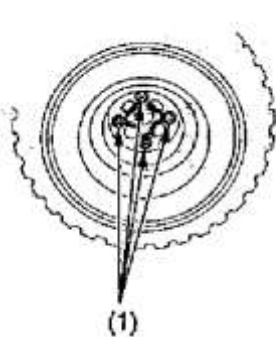
Whenever the ATV is to be operated far from service facilities or available transportation, we recommend that you carry a tire pump and a repair kit with the vehicle.

If the leak is more serious, or a temporary repair doesn't hold, the tire must be replaced. The tire will also need to be replaced if it is damaged. Replacing a tire involves removing and re-installing the wheel.

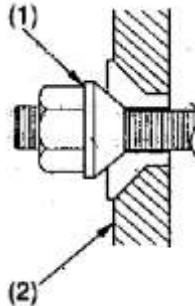
If you are unable to repair a flat tire on the trail, you will need to send for help. We strongly recommend that you do not try to ride with a flat tire. The ATV will be hard to handle, and if the tire comes off the rim, it may lock up the wheel and cause you to crash.



## Emergency Wheel Removal / Installation



(1) wheel nuts



(2) wheel rim

### Removal

1. Park your ATV on a firm, level surface.
2. Raise the front (or rear) wheels off the ground and place a support block under the vehicle.
3. Remove the wheel nuts (1) with a 17mm socket wrench.
4. Remove the wheel.

## Installation

- 1.Position the wheel.
- 2.Position the wheel nuts so that the tapered sides face the wheel rim (2).
- 3.Tighten the wheel nuts in a crisscross (rather than a circular) pattern to the specified torque:47ibf • ft (64 N • m, 6.5 kg • fm)

If a torque wrench was not used for installation, see your dealer as soon as possible to verify proper assembly. Improper assembly may lead to loss of braking capability.

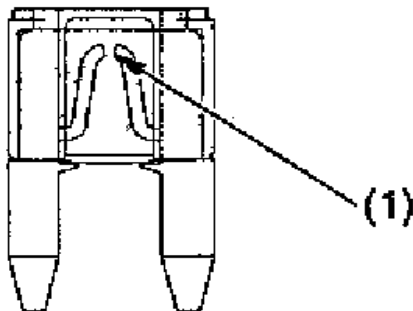
## **If a fuse blows**

All of the electrical circuits on your ATV have fuses to protect them from damage caused by excess current flow ( short circuit or overload).

If something electrical on your ATV stops working, the first thing you should check for is a blown fuse (1).

Check all the fuses before looking elsewhere for another possible cause of the problem.

Replace any blown fuses and check component operation.



(1) Blown fuse

The main fuse and the circuit fuses are located in the battery compartment.

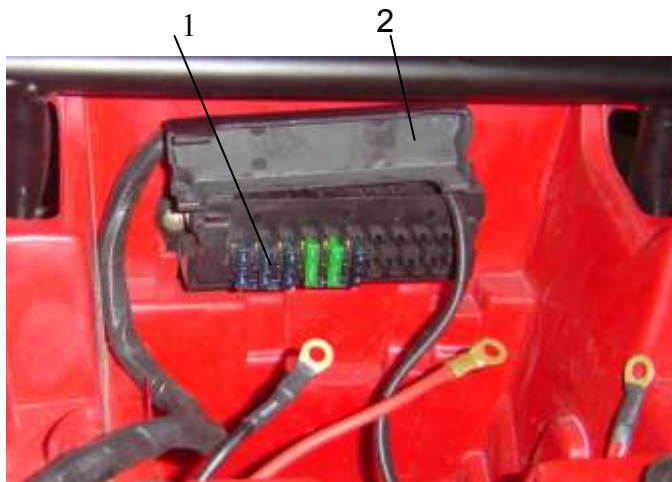
## Recommended Fuses

Main fuse	30A
Main fuse (control motor fuse)	30A
Other fuse	15A×2, 10A×2

- (1) Fuse  
(2) Fuse box

### NOTICE

*Replacing a fuse with one that has a higher rating greatly increases the chance of damage to the electrical system.*



## **If You Crash**

Personal safety is your first priority after an accident. If you or anyone else has been injured, take time to assess the severity of the injuries and whether it is safe to continue riding. If you cannot ride safely, send someone for help. Do not ride if you will risk further injury.

If there is minor damage, or you are unsure about possible damage but decide to try riding the ATV back to your base, ride slowly and cautiously.

## **Technical Information**

This section contains dimensions, capacities, and other technical data, plus information on government requirements and how to break in your ATV.

### **Vehicle Identification**

#### **Serial Numbers**

The frame and engine serial numbers and key number may be required when ordering replacement parts. You may record these numbers in the Quick Reference section at the rear of this manual.

The frame number is stamped on the front of the frame.

The engine number is stamped on the left side of the rear crankcase.



ITEM	DESCRIPTION
<b>Vehicle</b>	
Dimension (L×W×H)	2100×1210×1200mm
Wheelbase	1320mm
Tread (front)	920mm
Tread (rear)	935mm
Ground clearance	280mm
Seat height	920mm
Dry weight	311kgs
Gross Weight	356kgs
Fuel tank	13L
Max speed	85km/h
Brake system front/rear	Disk/Disk
Gearshift mode	Automatic clutch, five speed, one neutral with inside reverse gear
Transmission mode	Shaft
Drive system	4WD-2WD

Tire front	25×8-12&24×8-12
Tire rear	25×10-12&24×9-11
Cargo front	66lbs(30kg)
Cargo rear	133lbs(60kg)
Tow weight limit	3376N(385kgf/850lbs)
Tongue weight	137N(14kgf/30bs)
<b>Engine</b>	
Engine model	179F
Efficient Capacity	359ml
Engine type	4-stroke, Single-Cylinder
Cooling system	Air-cooled + Oil-cooled7
Rated power and rotate speed	13.5kw/5500rpm
Max torque and rotate speed	24N.m/4000rpm
Economical oil consumption (L/100km)	≤7
<b>Electrical</b>	
Battery	12V-14Ah
Starting system	Electric/Hand-pull
Ignition	DCDI



# **MAINTAINING    MANUAL**

---odes ATVS

## 一、Difficult to start the engine

### 1、Without high voltage

#### Reason analysis

- (1)、Inspect whether each connector pins are good, such as ignition switch, alternator, ignition coil, D-CDI unit, fuses.
- (2)、When to start the engine, the ignition coil, spark plug whether have the phenomenon of spark

#### Disposal method

- (1)、Be sure each connector pins fastness, fuses good
- (2)、Open the ignition switch and start the engine, and check the ignition coil, spark plug, if not ok, then replace the related abnormally spare parts.

### 2、The oil duct isn't expedite

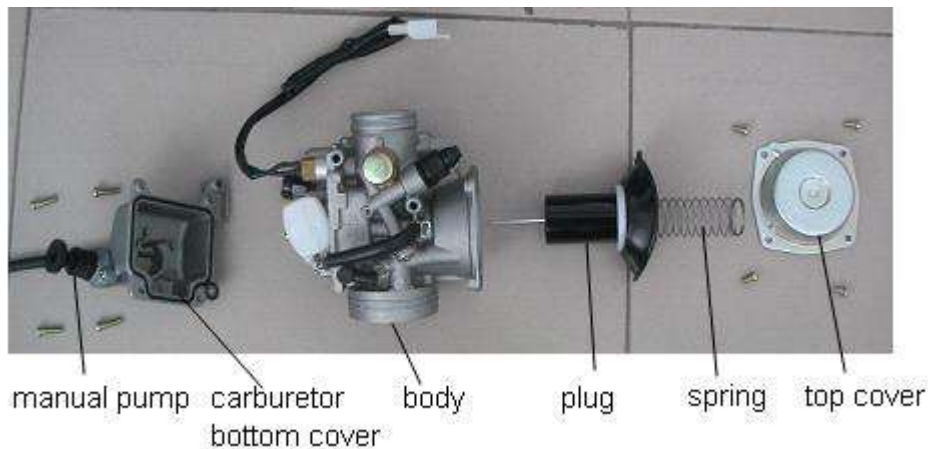
#### Reason analysis

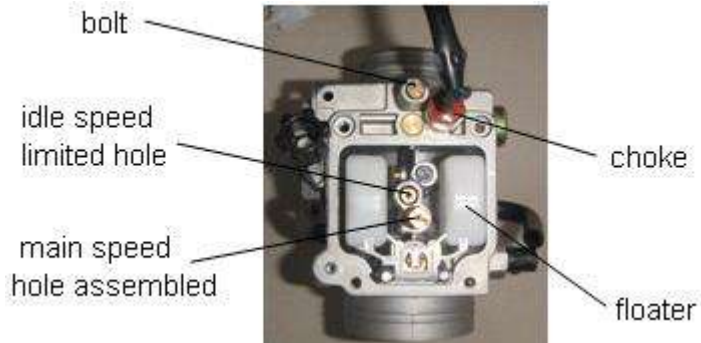
- (1)、The switch of fuel tank wall up
- (2)、The oil piled damages or stops up
- (3)、The quality of gasoline is bad
- (4)、The oil does not enter into the carburetor or the spray nozzle stops up

### Disposal method

- (1)、Inspect the oil quality , vitta , the fuel tank switch, the oil duct are whether good.
- (2)、Inspecting the carburetor. Handling the oil pump in order to find the oil in the carburetor is good or not. clean and replace the carburetor if it is badthe method of .

### Carburetor decomposition and purging (attached chart)





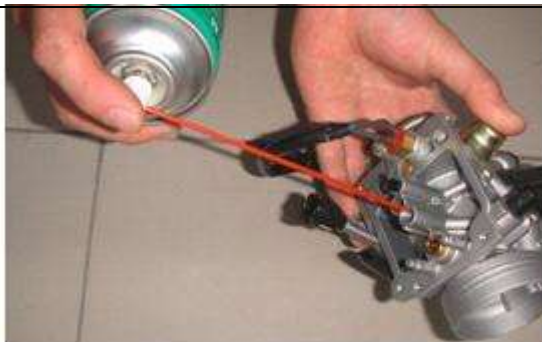
floaters fastness  
pin

floaters pin



floaters fastness  
pin

floaters pin



clean method: clean out the assemble hole of  
main speed hole with cleanser .



clean method: clean out the assemble hole of idle  
speed limited hole with cleanser .



clean method:  
clean out the floater pin hole with cleanser.



clean method: clean out the idle speed  
limited hole with cleanser.



clean method: clean out the main speed  
hole with cleanser.



clean mothod:  
clean out the main speed hole pin.



### 3、 The engine compression pressure is insufficient

#### Reason analysis

- (1)、 Valve clearance is whether good
- (2)、 Cylinder body and piston ring are whether damage
- (3)、 Valve whether have the phenomenon of leaking air

#### Processing method

Takes down the spark plug, and stops up the assembly hole of the spark plug with finger. Starting the engine to try whether have the greater barometric pressure impact finger. If abnormal, you can turn on the engine and check the valve, the valve clearance, the piston, the piston ring, the cylinder body, seals are whether good. If it is abnormal , please replace corresponding spare parts.

#### **Alignment procedure about valve clearance**

(adjusts from the vehicle body, attached chart)

a. Loosen the cylinder cover bolt

cylinder cover

cylinder cover  
bolt



b. Take down the cylinder cover;

enter valve pin

drain tap pin



c、Take down the cover



observe cover

d、Pull the handle starter



the handle starter

- e、 Let “T” line on the flywheel drive at the center of the check pole and make the drain tap deepest tip.



- f、 Inspect the intake valve gap with the 0.1mm feeler gauge.



g、 Inspect the row valve clearance with the 0.1mm feeler gauge



h、 Adjust the intake valve gap to make it 0.1mm

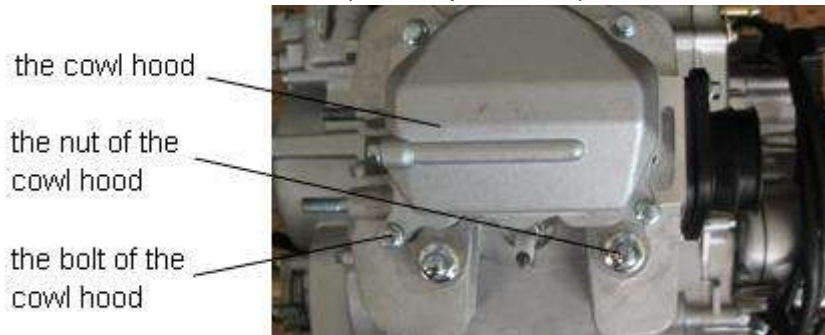


- i、 Inspect the intake valve with 0.1mm feeler gauge



**Inspection the valve seal (attached figure):**

- a、 Loosen the bolt of the cowl hood ( the torque 10N.M)

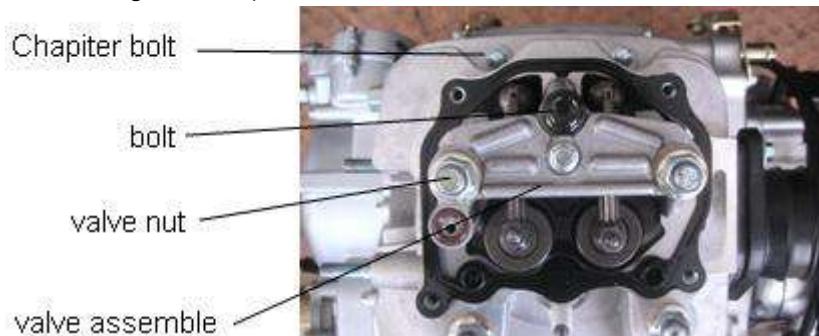


b、Take down the cowl hood;



c、Loosen each bolt and nut

(valve nut torque 35N.M, bolt torque 25N.M cylinder head torque 10N.M)  
(before unloading the nuts)



(after unloading the nut)



d、Take down the valve assembly

(before takes)





(after takes)



e、Takes down the cylinder head assembly

(before takes )



(after takes)

the drain tap

firebox

the enter valve



the drain tap

the spark plug

the enter valve



- f、 Put the air cylinder head down evenly, then put clean gasoline into the combustion chamber to soak the valve and the spark plug.



- g、 Inspect whether there is air bubble or leaks air



#### 4、Trigger works not to be good

##### Reason analysis

Trigger to be bad

##### Processing method

Replace the spare parts

## 二、The engine acceleration incapable and it cannot run in high speed.

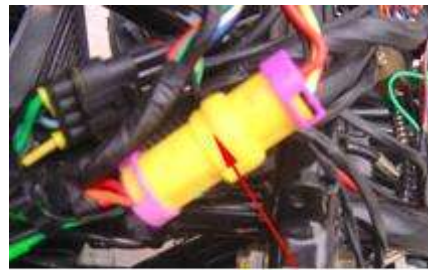
### 1、The engine has the problem that it breaks fire when to accelerate.

##### Reason analysis

(1)、The contact about ignition switch, alternator, ignition coil, D-CDI unit fuse, and each connection-peg whether do good.



ignition coil



ignition switch



D-CDI unit fuse



alternator

- (2)、D-CDI unit, ignition coil, spark plug whether has the phenomenon of leakage in the process of engine working normally.

#### Processing method

Guarantee the connection-peg to be reliable, and replace the spare parts that leak electricity.

## 2、The oil duct is not unimpeded.

#### Reason analysis

- (1)、Inspect the oil duct entering into the carburetor is whether unimpeded.
- (2)、The carburetor pump is whether good, or whether have the phenomenon of leaking oil.
- (3)、Oil material is whether good.

#### Processing method

- (1)、Guarantee the oil duct to be unimpeded before entering into the carburetor.
- (2)、Clean various pin valves oil hole of carburetor, and replace them if necessary.
- (3)、The oil material is whether good.

### 3、Difficult to push the vehicle.

#### Reason analysis

Brake by self,the movement has interference.

#### Processing method

Push the vehicle, and inspect the resistance whether too oversized, if it is too oversized, ones should inspect the braking system whether there is the phenomenon of abnormal rubs, replace it if also have the problem.

### 4、The air feeder stops up or leaks air.

#### Reason analysis

The air feeder bursts or the filter element stops up.

#### Processing method

Replace the air feeder or the filter element while exist this question.

### 5、The friction of main clutch pad and the secondary piece of the engine is serious.

#### Reason analysis

Opens the host and the secondary coupling pad block and the friction piece to inspect

whether wears and tears seriously.

#### Processing method

Replaces the host and the inferior coupling, the friction piece , and replaces new assembly if necessary.

6、Cylinder, piston, spark plug ring wear seriously, and the valve leaks air.

#### Reason analysis

Cylinder, piston, spark plug ring wear seriously, and the valve whether have the phenomenon of leaking air.

#### Processing method

Open corresponding spare parts to observe the situation of attrition, if exist this problem , replace the related spare parts.

7、The exhaust pipe and the muffler stop up.

#### Reason analysis

The exhaust pipe and the exhaust whether stop up. ( the excessive deposition of carbon and the vent-pipe with catalyzer are easy to cause this problem )

#### Processing method

Replace the spare parts if necessary.

三、 The engine idle speed is unstable, and has the phenomenon of belch, and easy to flameout. the vehicle has noise when begin to start, but then it is normal when to accelerate .

1、 Adjusting carburetor is improper.

**Reason analysis**

The mixture air excessively thick or thin.

**Processing method**

Adjust the mixture proportion according to the temperature.

mixed air become thick when  
rotated by anti-clockwise

mixed air become thin when  
rotated by clockwise





2.The valve clearance is bad and has the phenomenon of leaking air.

**Reason analysis** :

Valve clearance is too big to make exhaust gas that make the force of compression insufficient, then causes the valve leaks air.

**Processing method**

Readjust the valve clearance in 0.10mm.

3、 The problem on cam shaft and poppethead.

**Reason analysis**

The cam shaft and poppethead go against the valve to cause to leak air.

**Processing method**

Replace the cam assembly.

四、 The junction of box body and oil seal leak oil.

1、 The sealant in the adjoining planes does not play the role because of long time.

**Reason analysis**

Sealant non-uniformity.

**Processing method**

After open the junction plane and clean it, then spread the sealant again.

2、 oil seal damage.

**Processing method**

Replace oil seal and others.

五、 The power of the starting motor is insufficient.

1、 Electric power in the battery is insufficient (cannot be lower than 12V), contact of the wiring column is not good.

**Reason analysis** :

The battery without electricity, the few electrolytes, the wiring column of positive and negative level not be tight.

**Processing method**

Guarantee the group of lines to be reliable, if battery is bad, replace it.

2、 The correlation electric circuit has the question that contact not to be good and continually the electricity (including starting the start relay assy).

**Reason analysis**

The related connection-peg and the relay are whether good.

**Processing method**

Replace the correlation damaged spare parts.

### 3、Quality question of starting motor itself.

#### Reason analysis

The starting motor contact is not good.

#### Processing method

Replaces the starting motor with new.

## 六、The carburetor leaks oil, and the electric chock does not work.

### 1、The pin valve of carburetor or dobber wall up.

#### Reason analysis

Whether is too dirty or has other things in the carburetor interior.

#### Processing method

Clean the carburetor, and open up it to examine the pin valve and dobber whether are break off, then inspect the quality of selecting oil is whether good, replace the carburetor if necessary.

### 2、The resistor's solenoid does not work.

#### Reason analysis

The solenoid without electricity or is bad.

#### Processing method

The solenoid whether has the warm feeling with your hands after open up the electrical source, replace the carburetor, if it's non- response.

### 七、The whole vehicle without electricity.

#### 1、Battery without electricity.

##### Processing method

Replace the battery.

#### 2、The contact of the ignition switch not to be good. (attached chart)

##### Reason analysis

The electronic contact falls off.

##### Processing method

Replace the ignition switch.

#### 3、Blowout

##### Reason analysis

Electricity

##### Processing method

Replace the fuse



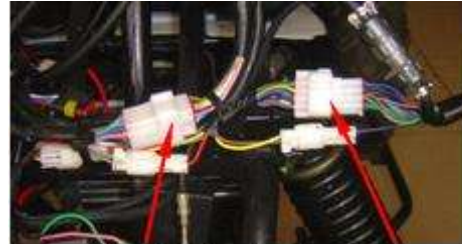
4、 The switch or the indicator can not inserted firmly or falls off.

**Reason analysis**

The switch is bad.

**Processing method**

Replace the switch.



assembled switch  
insertion

indicator  
insertion

5、 The group of lines turnoff.

**Reason analysis**

Burns out or falls off.

**Processing method**

Replace the group of lines.

八、 Without electric start-up or starter  
cannot stop.

1、 Start blowout; (Attached figure)

**Reason analysis**



Short circuit

**Processing method**

Replace the starting fuse.

2、 The electricity starting switch is not normal.

**Reason analysis**

The switch is bad.

**Processing method**

Replace electricity starting switch.



electricity starting switch

3、 The group of lines turnoff.

**Reason analysis**

Burns out or falls off.

**Processing method**

Replace the group of lines.

4、 The electronic contact is not good.

#### Processing method

Replace the electronic contact.

5、The relay is not normal

#### Reason analysis

The electronic contact is bad.

#### Processing method

Replaces the relay.

6、The electrical machinery work is not normal.

#### Reason analysis

The electrical machinery is bad.

#### Processing method

Replaces the electrical machinery.



electrical machinery



relay



flameout switch

7、The flameout switch is out of place.

**Processing method**

Puts it to the correct position.

九、It is difficult to shift the gearshift (foot, electricity)

①、Firstly adjust the adjusting screw



②、Move the control electromotor





③、Remove the gear cover



④、Remove the front crankcase cover



⑤、Remove the front crankcase cover



- ⑥、 Remove the clutch handle, and take away the guard ring ,then remove 6903 bearing and bearing seat.



- ⑦、 Remove the clutch assembly and sole clutch



- ⑧、 Remove the locknut and clutch, then  
takeaway the vitta, short vitta and Oring.



- ⑨、 Remove the gearshift spindle, gearshift  
tray and spring, then take away the  
transform apparatus , bolt, plug and  
spring.



1、 The adjusting of clutch is improper.

Reason analysis

Readjusts the clutch.

Processing method

The adjustment method, loosen the nut in the engine front cover, adjust the bolt and revolves gently to the end by anti-clockwise till returns by  $1/4 \sim 1/3$ , then locks the nut, examine the vehicles again to inspect whether can be in high speed.



Adjusting bolt of clutch

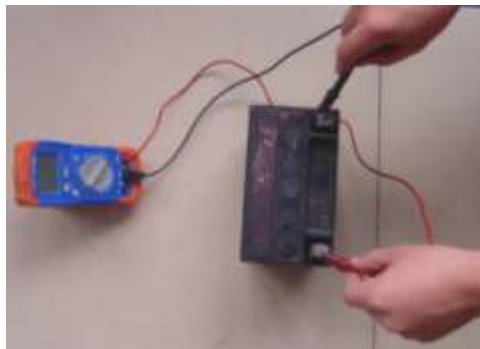
2、 The battery voltage is insufficient when to gearshift with electricity.

Reason analysis

Survey battery voltage with multimeter.

#### Processing method

Replaces the battery



3、 The contact of the switch of electric shift gear not to be good or turnoff.

#### Reason analysis

The switch is bad.

#### Processing method

Replace the electric shift gear switch.

4、 The control unit does not work.

#### Reason analysis

Control unit ECU is bad.

#### Processing method

Replace the control unit.

#### 5、 The lines of the electric shift gear turnoff.

##### Reason analysis

Burns out or falls off.

##### Processing method

Replace the lines of the electric shift gear.

#### 6、 The electric shift gear blowout.

##### Reason analysis

Short circuit.

##### Processing method

replace the fuse of the electric shift gear.

#### 7、 Cooperation between the gearshift axis and the gearshift pole spline present slide. (attached chart)

##### Reason analysis

Attrition of the spline.

##### Processing method

- (1)、 Replace the gearshift axis.
- (2)、 Replace the gearshift pole.



the gearshift pole

8、The shift electrical machinery not to work.

Reason analysis

The electrical machinery is bad.

Processing method

Replace the shift electrical machinery.

9、The attrition on the gear of the electric shift gear.

Reason analysis

The gear is bad.

Processing method

Replace the gear of the electric shift gear.

(before takes )



(after takes)



## 十、The display of indicator does not work.

### 1、The indicator does not show.

#### Reason analysis

The display of indicator is bad.

#### Processing method

Replaces the indicator.

### 2、Circuitry break off.

#### Reason analysis

The plug falls off or turnoff.

#### Processing method

Replaces the plug.

### 3、The group of lines blowout.

#### Reason analysis

Short circuit

#### Processing method

Replace the group of lines fuse.

### 4、Display of the engine is not normal.



### Reason analysis

Short circuit

### Processing method

Replace display of the engine.

## 十一、The vehicle run in deflection.

### 1、The barometric pressure is inconsistent.

#### Reason analysis

Leaks air or slowly seeping air.

#### Processing method

Replace the tire or the valve and maintain four tires have consistent barometric pressures.

### 2、The front assembly lean.

#### Reason analysis

The pull pole becomes loose.

#### Processing method

Readjust.



## 十二、The horn without sound.

### 1、Circuitry break off.

#### Reason analysis

Turnoff.

#### Processing method

Inspects the circuitry.

### 2、The switch malfunctions.

#### Reason analysis

The switch is bad.

#### Processing method

Replace the horn switch.

### 3、The plug has not met.

#### Reason analysis

Falls off.

#### Processing method

Reinstallment.



4、The fuse breaks off.

Reason analysis

Short circuit.

Processing method

Replace the horn fuse.

5、The horn is bad.

Processing method

Replace the horn.

十三、The winch work is unusual.

1、The battery without electricity.

Processing method

Replace the battery.

2、The switch malfunction.

Reason analysis

The switch is bad.

Processing method

Replace the switch of the winch.

### 3、Circuitry break off.

#### Reason analysis

Turnoff.

#### Processing method

Inspects the circuitry.

### 4、The electrical machinery does not work.

#### Reason analysis

The electrical machinery is bad.

#### Processing method

Replace the electrical machinery of winch.

### 5、The relay electronic connector is short.

#### Reason analysis

The relay is bad.

#### Processing method

Replaces the relay.

### 6、Internal gear damaged.

#### Processing method

Replaces the winch.

#### 十四、The braking does not work.

##### 1、Inspect the thickness of pad.

###### Processing method

Inspection and replacing.

##### 2、Vitta leaks oil.

###### Reason analysis

Drill tubing crack, screw pine.

###### Processing method

Replaces the brake disc.

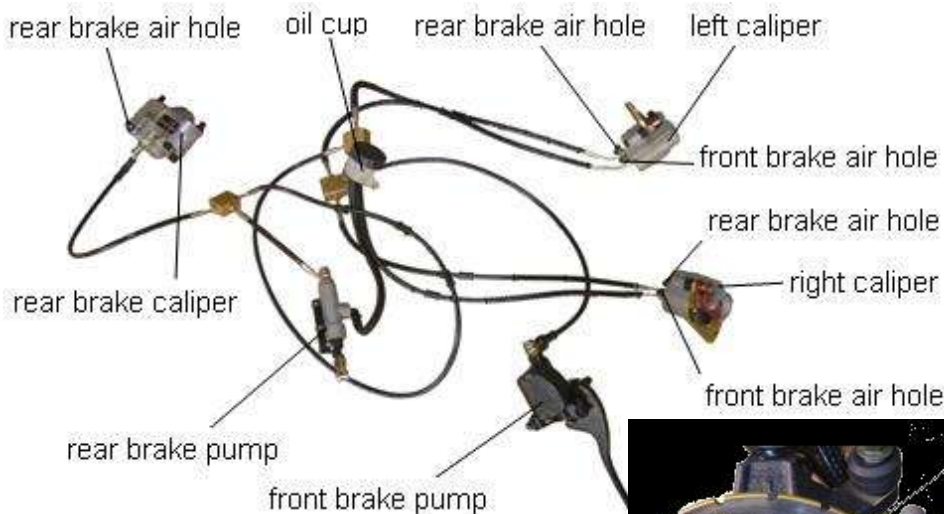
##### 3、Inside of the braking pumps be full of air.

###### Processing method

The adjustment method.

- (1)、Open up the oil cup cover in order to ventilate.
- (2)、Exhaust, step on the break shift back and forth to exhaust .
- (3)、Exhaust, open the nut with the M8 open end wrench to deflates, then screw the nut tightly, the other two pumps as the same method to deflate till the brakes work is good. attention, when to deflate, ones must step on the break shift and give the

pump certain pressure in order to exhaust the air , when to screw the nut tightly, also need pressure situation.



4、 The brake disc has oil (attached chart).

Reason analysis



Antirust oil.

**Processing method**

Clean it with rag.

## 十五、The fan does not work.

1、The fan connection-peg contact is not good.

**Reason analysis**

The output line of fan contact is not good, and has the question about electricity.

The fan electrical machinery does not work

**Processing method** Replaces the fan assembly

2、The oil temperature sensor is bad

**Reason analysis**

The sensor does not play the role

**Processing method**

Replace the sensor

## 十六、The front and rear drive reducer have noise

1、Gear attrition

#### Reason analysis

The gear is bad

#### Processing method

Replace the gear of drive reducer

#### 2、Electrical machinery damage

#### Processing method

Replace the electrical machinery

#### 3、Ehe controller is bad

#### Processing method

Replaces the controller

#### 4、The switch is bad

Processing method Replaces the switch

#### 5、Gear block

#### Reason analysis

6、The gear does not return to the position

#### Processing method

Replace the gear

#### 7、Dials break off



### Processing method

Replace the dials

## 十七、The battery without electricity

### 1、Short circuit

#### Reason analysis

The fuse is bad

#### Processing method

Inspect and replace the circuit again

### 2、The magneto does not charge or charges weakly

#### Reason analysis:

The coil quality is bad

#### Processing method

Replaces the magneto

### 3、The regulator is bad or falls off

#### Reason analysis

The regulator not live pressure or without electricity

#### Processing method

Replaces the regulator

#### 4、 The battery aging

Processing method

Replace the battery

#### 十八、 The direction is unstable

Reason analysis

- 1、 The pressure is inconsistent
- 2、 The front assembly lean
- 3、 Attrition about the tire is serious
- 4、 The gap of ball oversized
- 5、 Four wheels not tight and swing

#### 十九、 The taillight is not bright

- 1、 The bulb is bad

Reason analysis

The fuse of bulb is bad

Processing method



Replace the bulb

## 2、The plug has not met

Reason analysis

Falls off

Processing method

Reinsertion

## 3、Circuitry break off

Reason analysis

Turnoff

Processing method

Inspect the circuitry and replace

## 4、The fuse break off

Reason analysis

Short circuit

Processing method

Replace the fuse taillight

## 二十、The direction lamp not to be bright

# 1、 The switch malfunction

## Reason analysis

The switch is bad

## Processing method

Replaces the switch

# 2、 Circuitry break off

## Reason analysis

Turnoff

## Processing method

Inspects the circuitry

# 3、 The plug has not met

## Reason analysis

Falls off

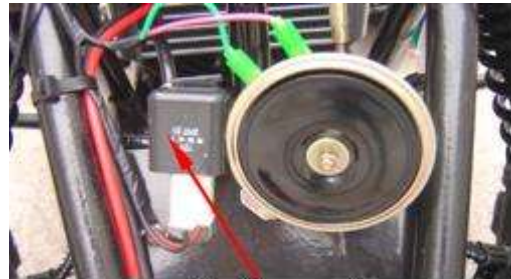
## Processing method

Reinstallment

# 4、 The bulb is bad

## Processing method

Replace the bulb



flashing amber

## 5、Flashing amber contact is not good

### Reason analysis

Flashing amber is bad

### Processing method

Replace the flashing amber

## 6、The fuse break off

### Reason analysis

Short circuit

### Processing method

Inspection and replacement

## 二十一、Does not work

### 1、The odometer does not show

#### Reason analysis

The indicator is bad

#### Processing method

Replace the indicator

### 2、Circuitry break off

### Reason analysis

Turnoff

### Processing method

Inspects the circuitry

3、 The plug has not met

### Reason analysis

Falls off

### Processing method

Reinsertion

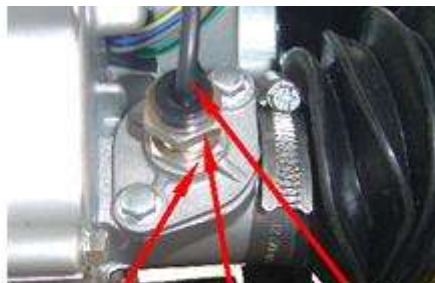
4、 The sensor is bad or adjusted improperly (attached chart)

### Reason analysis

The sensor contact is not good

### Processing method

After clockwise twists lowly,  
draws back 2 ~ 2.5 circle



fastness nut    adjusting nut    rotate speed  
sensor

